

# MANUFACTURERS' RECORD.

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## Manufacturers' Record.

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BALTIMORE, DECEMBER 20, 1895.

### The President's Message.

Last Tuesday afternoon the President's message was sent to Congress and wired immediately to every part of this country and to all centres of civilization throughout the world. The immediate, spontaneous and unanimous response of the American people was without precedent in our history. No message from the White House ever received such instant and universal approval. As in Congress, so through all our Commonwealths, men forgot party issues and disputes over questions of domestic policies, and, giving full play to their patriotism, joined in praising the message. And why? Because the principles of the Monroe doctrine are as much a part of American belief as are those of the Declaration of Independence, and the people of this country will never permit them to be ignored or violated by any foreign government or any combination of governments. It is because the message voiced the sentiment of the entire American people, and insisted upon the maintenance of their rights with a calm, firm dignity, free from bluster and threat, clear in statement, invulnerable in logic, that the country instantly endorsed it as broad-minded, patriotic, American through and through, and signified the people's readiness to "accept the situation, to recognize its plain requirements and deal with it accordingly."

And what is the situation? The American view was given in Secretary Olney's letter to Ambassador Bayard in the following sentences:

The States of America, South as well as North, by geographical proximity, by natural sympathy, by similarity of governmental constitutions, are friends and allies, commercially and politically, of the United States. To allow the subjugation of any of them by a European power is, of course, completely to reverse that situation, and signifies the loss of all the advantages incident to their natural relations to us. But that is not all. The people of the United States have a vital interest in the cause of popular self-government.

Today the United States is practically sovereign on this continent, and its fiat is law upon the subjects to which it confines its interposition. Why? It is not because of the pure friendship or good will felt for it. It is not simply by reason of its high

character as a civilized State, nor because wisdom and justice and equity are the invariable characteristics of the dealings of the United States. It is because, in addition to all other grounds, its infinite resources, combined with its isolated position, render it master of the situation and practically invulnerable as against any or all other powers. All the advantages of this superiority are at once imperilled if the principle be admitted that European powers may convert American States into colonies or provinces of their own. The principle would be eagerly availed of, and every power doing so would immediately acquire a base of military operations against us. What one power was permitted to do could not be denied to another, and it would not be inconceivable that the struggle now going on for the acquisition of Africa might be transferred to South America. If it were, the weaker countries would unquestionably be soon absorbed, while the ultimate result might be the partition of all South America between the various European powers. The disastrous consequences to the United States of such a condition of things are obvious. The loss of prestige, of authority and of weight in the councils of the family of nations would be among the least of them. Our only real rivals in peace, as well as enemies in war, would be found located at our very door.

The British government denies that the United States has these rights, and insists that they have never before been asserted as a part of or within the scope of the Monroe doctrine; that they have not, and never will be, recognized as a part of international law; that the Monroe doctrine was an edict issued to meet an exigency, and that the latter having disappeared, the edict itself is obsolete and not entitled to recognition; and finally Lord Salisbury declares, firmly but in smooth diplomatic language, that the United States has no business to interfere between Great Britain and Venezuela, and that any attempt to do so will be considered unfriendly and impertinent.

This is the situation which the President has put before Congress for its consideration and action. It is not the mere question as to whether Great Britain will turn the greater issue of maintaining the partition of all South America between the various European powers, and permit "our only real rivals in peace, as well as enemies in war," to locate "at our very door."

Such are the grave questions involved in the Venezuela boundary affair which Congress has been called upon to consider. They are much too serious for hasty action. They demand calm, dispassionate, deliberate and profound thought, for upon their final decision depends the peace and prosperity not only of the United States, but of all the peoples of this western hemisphere. Congress must, and unquestionably will, take up this subject in the calm, judicial spirit that characterizes the memorandum of Secretary

Olney and the message of the President, and that inspired the latter when, in conclusion, he said:

In making these recommendations, I am fully alive to the responsibility incurred, and keenly realize all the consequences that may follow. I am, nevertheless, firm in my conviction that while it is a grievous thing to contemplate the two great English-speaking people of the world as being otherwise than friendly competitors in the onward march of civilization, and strenuous and worthy rivals in all the arts of peace, there is no calamity which a great nation can invite which equals that which follows a supine submission to wrong and injustice and the consequent loss of national self-respect and honor, beneath which are shielded and defended a people's safety and greatness.

### A Home Market.

"The doctrine of protection to American industries and labor is making rapid headway in the South, particularly in the Carolinas, Georgia and Alabama," remarked Dr. Sampson Pope, of South Carolina, to a reporter of the Post. "We will soon have in my State 1,000,000 cotton spindles, with a corresponding number of looms, at work, consuming 500,000 bales of cotton per annum, at a cost at present prices of about \$20,000,000, all bought from our home farmers. We have 20,000 operatives in the mills, nearly all of them natives and whites, who receive annually in wages \$4,800,000. In addition to this, profits are paid to the resident stockholders of at least \$500,000 per annum."

"Our people see the great benefits accruing from local manufactures. The farmer not only sells his cotton for a better price, but he has a home market for all the other produce of his plantation. The merchant sees his custom doubled under the new order. There is no trade, business or profession that does not feel the stimulus."—Washington Post

A home market for their products is what the farmers of the South must have. Every factory established means an increase in the consumption of what the farmer raises, and an increase in the opportunities for employment for all classes. With diversity of employment and diversity of interests, the growth of cities and the expansion of industrial enterprises, the South will increase in wealth and population as never before.

### The Mexican Exposition.

Reports from Mexico indicate that the Mexican National Exposition, to be held in the City of Mexico in 1896, will be a very elaborate enterprise. A large number of American firms, as well as representatives of prominent European concerns, have applied for space, including the Krupps, the famous gun-makers of Germany. A company is being organized in New York which will represent the exposition in the United States. About 600 acres of ground, excellently located, have been secured as a site for the exposition, and it is understood that President Diaz intends making every effort possible to bring about a great success.

The value of hustling is illustrated in the case of Rome, Ga. About a year ago that town succeeded by vigorous work and liberality in securing the location there of a \$600,000 cotton mill, now under construction, by one of the oldest and largest cotton-mill companies of New England. The same enter-

prise has again, as stated by the Manufacturers' Record last week, captured another cotton mill, in which \$600,000 will be invested, with a strong probability of this amount being increased to \$1,000,000. Enterprise of this kind builds cities and creates wealth. Rome is entitled to the hearty congratulations of the whole South.

### To Add to the Wealth of the Nation.

Some of the readers of the Manufacturers' Record in the South, as well as in the North, have sometimes been disposed to question the claims which it has made in stating that this part of our common country would henceforth increase more rapidly in wealth than any other section. These statements are based not on what is being done today or what may be done tomorrow, but rest on the natural foundation which has been given to this section for a marvelous combination of advantages such as no other section of this or any other country can claim. With these advantages, which the world is now beginning to fully understand, and with economic laws driving manufacturing interests to the point of cheapest production, and with the tide of population turned from the Northwest to the South, no man can attempt to picture the progress of this region during the next quarter of a century, without, however conservatively he may try to put it, being ranked as a wild enthusiast. It is an interesting fact, however, that the most careful and conservative business men and papers of other sections are fast coming to accept the statements which the Manufacturers' Record has been putting forth for so many years. The Boston Herald of December 16, in an editorial on the progress of the South, based on statistics which have from time to time been published in the Manufacturers' Record, after summing up what has been accomplished of recent years, says: "And yet, whether considered as the seat of agriculture, mining or manufactures, the South is still virgin soil. Its possibilities are as yet more remarkable than its recent progress, and as the one is developed and the other expands, it is destined to add in the near future more than any other part of the country to the aggregate wealth of the nation."

### A Big Coke Contract.

For several years the Illinois Steel Co., of Chicago, has been a large user of Pocahontas coke. A dispatch from Roanoke states that that company has now made a contract with the Pocahontas Coal Co. for 500,000 tons of coke to be delivered during 1896. It is stated that the steel company will furnish its own cars and that the business will aggregate about eighty carloads per day. To have predicted a few years ago that Chicago would look to Virginia and West Virginia for its coke supply would have been ridiculed by many eminent authorities, but every year is emphasizing the fact that the South is to be a more and more important factor



in the industrial development of the entire country.

### Sensational Dispatches from the South

Patterson, La., November 30.  
Editor Manufacturers' Record:

I have just read your editorial suggesting to the Southern and United Press Associations that they give less attention to sensational trash and more to material affairs, and I feel that I want to grasp your hand and give it a good hearty shake for what you have said. Heretofore you have touched on this matter, and I thought it so good that I had our local paper reproduce it. If all the country papers would republish your editorial, with comment, I do not see how it could fail to remedy the great evil into which many newspaper correspondents have fallen. As you wisely remark, when a poor old negro is lynched by some mob, justly or unjustly, the fact is heralded all over the Union as quickly as the wires can take it, and the papers give it their best space and a "fire edition" headlines and go into all the miserable details, telling how every muscle was distorted and how much the wretch suffered. And so when two rowdies have a quarrel, which in other sections would not attract even local newspaper notice, it is sent forth to the papers of the country as Southern news. Yet if a \$1,000,000 plant, to furnish employment to hundreds of hands and thus advance their welfare, is established at the same place, and it is accidentally mentioned in the press dispatches (which sometimes occur), the papers are very mum on the subject, for fear that they are being worked for a free "ad." But if some tramp is killed while stealing chickens (a matter in which no one on earth probably feels the least interest), it is, like the lynching, sent out over the whole country. Some time since we organized at this place a building association to help build homes for the colored and white workingmen of the neighborhood; later on we organized a high-school building association for the purpose of erecting a first-class schoolhouse here. In the first instance we got the local correspondent to send the news to the New Orleans papers, but I had to write out the dispatch for him, as he said there was nothing in it that interested the outside world to any extent. The matter of the high school was never mentioned at all. You have taken up a most excellent subject, and I hope you will keep hammering at it until you weed this rot out of the Associated Press dispatches. I remember that when Birmingham, Ala., was in its glory, leading the South's industrial march, the New Orleans papers every day had a long list of murders, lynchings, arson and all the other crimes in the calendar, but very little about the immense amount of money being spent in building furnaces, in operating coal mines, erecting buildings and the like, while every miserable bit of sensational news, was promptly sent in and blazoned to the world, and people all over this country and elsewhere thought Birmingham a regular charnel house, inhabited by all the thieves and murderers in the forty-four States. This letter is not intended for publication, by any means; I only felt that you had struck a keynote and some one ought to applaud, and I have tried to do my share. S. R. GUYTHER.

While this letter was not intended for publication, the Manufacturers' Record takes the liberty of using it in order to again impress this important subject upon the South. The press of the South must give more attention to material affairs and less to dog-fights and similar sensational stuff.

### THE OLD SOLDIERS' COLONY.

#### The Great Southern Immigration Movement.

[Special Cor. Manufacturers' Record.]

For several decades the great wave of emigration has been sweeping toward the West and Northwest. Great "prairie schooners" wended their slow way over the trackless plains; immense wagon trains bore patient pioneers to wrest from soil and season a new and prosperous home.

Then came the railroad, with its space-destroying speed and its great inducements to settlers. Low rates, big advertisements, the universal hope of "doing better"—all these did their work. Thousands of families found a home in the new States; millions of dollars were there invested. Many a fragile woman wore her life away amid strange, uncouth surroundings, bravely and uncomplainingly. There youth and health and strength fought valiantly for years till sudden frost or weeks of drouth or the terrible visitation of some insect plague swept the fruit of their labor into nothingness.

But the reaction has come; the tide has turned, and now men and money, hearts and homes, are looking to the South.

When one contemplates the advantages made clear by a careful and unprejudiced comparison between the two sections—let us take Dakota and Georgia as typical—it seems marvelous, nay, incredible, that heretofore Dakota should have received ten settlers to Georgia's one. Far to the north Dakota stands, one lone gift within her hands—a deep and fertile soil; behind her, looming dark and dread, are winter, cyclones, crop failure, freezing and starvation. Here on the shores of the Atlantic fair Georgia waits, crowned with content, mantled with prosperity and sandalled with a soil that naturally blushes into the peach and blooms into the grape. The golden haze of a genial climate surrounds her like a halo; giant pine and stately cypress embower her with health and riches, and in her hands are all good gifts.

And Georgia no longer smiles and beckons in vain, for the stream of immigration is flowing to her feet, bearing on its tide thousands of barks freighted with the hopes of hearts long tried by adverse seasons and circumstances.

The great captain of this new exodus is Mr. P. H. Fitzgerald, of Indiana. In his fertile brain a tiny seed-thought started some ten years since, upon noting the way in which immigrants to this country scattered over the different States, scarcely two in one vicinity. It struck him that it would be a grand thing to locate these new comers in a colony, but he was frustrated at the first step by the difficulty of finding large tracts of land at sufficient low prices. But the thought lay dormant and soon received new stimulus to full and perfect growth.

In his capacity of editor of the American Tribune (a paper for federal veterans) he received many letters from Western subscribers, detailing the various vicissitudes which were causing them to sigh for sunnier climes and happier homes. The general financial depression of 1893 and 1894 augmented their discontent and indeed made a change of some kind imperative.

In the winter of 1894 some of the Western States actually suffered for food, and when at last Nebraska was compelled to stretch imploring hands for aid Mr. R. H. Edmonds, editor of the Manufacturers' Record, issued through that paper and through the Associated Press an earnest appeal for the South, which had been blessed with large crops, to send of its abundance to the sufferers in the North-

west, asking Gov. W. J. Northen to handle Georgia's contributions. The South promptly met the appeal and sent in the aggregate over \$50,000 worth of food-stuffs. Georgia responded by pouring forth from her abundance such treasures of corn and other food products as aroused the admiration and amazement of the whole country. Her contribution filled two immense trains.

Astonished at such a contribution from such a source, Mr. Fitzgerald immediately entered into correspondence with Governor Northen as to the feasibility of obtaining a sufficient acreage for a colony in this State.

During these later years Georgia had been preparing quietly but thoroughly for a grand natural fruit exhibit, and at just the right moment, when the idea of forming a Southern colony had taken permanent shape in the projector's brain, our Empire State burst the fetters of hard times, threw off the pall of poverty and stood forth arrayed in such glory of fruit and foliage as drew all eyes in her direction.

It was during this great display in the spring of 1895 that a committee representing five different States was selected by Mr. Fitzgerald to accompany him to this section to view the land. These were all G. A. R. men, and it is under the auspices of this organization that the colony has been formed.

It is needless to say that these gentlemen were more than pleased with the fair prospect. They returned a most enthusiastic report, and the colony was an assured fact.

After much effort and some disappointments the present site in Wilcox and Irwin counties was secured, the deeds made and the work of laying out the city completed. For two months have eager members been pouring into this section, locating temporarily in adjacent towns or in all sorts of temporary habitations on the colony grounds. Mills were put in operation and the great pines converted into "shacks" to keep out the elements till the shareholders could receive their allotments and build comfortable homes. In one instance a pine was felled at day-break and transformed into a bedroom before night.

Many of the settlers have come by rail, though others have taken the slower and less expensive method of traveling in covered wagons. Some of these latter are most interesting. One, covered with oil-cloth marbled to a semblance of grained wood, was fitted up with sliding windows, stovepipe, etc., while behind was slung a coop of high-bred fowls. Many are bringing all sorts of fine live stock, while in some instances it seems as though the far Western home had been taken up bodily and transplanted to this Southern soil.

At present there are thirty-five hundred people on the ground, from two to five wagons arriving daily, while travelers report the roads to the north and west lined with companies of homeseekers. The daily train brings in from fifteen to fifty, and one day the figure reached ninety. At least five hundred permanent buildings are going up.

The population of the new city will be decidedly cosmopolitan. From the far North come sturdy farmers, who are seeking relief from the rigor of the long, severe winters. One of the colonists tersely expresses it: "I want to go where my women folks and live stock will not suffer." To others who have seen death like a grinning spectre waiting to claim some loved one, while they stood helpless and despairing, this opportunity to secure a home in such a climate, with so small an outlay, has come like a benison from heaven.

From the far Western States come many who are weary of sowing and tilling "for sixteen hours a day from April to November," as one of these energetic newcomers assures us, "only to sell potatoes for nine cents and oats for sixteen." Others, whom drouth and insects have combined to ruin, are rejoicing over the long growing season here in the South. They say: "There, it is one crop in three years; here, it will be three crops in one year." When such indomitable pluck and energy join hands, with all the favorable conditions here awaiting the tiller of the soil, what grand results may not be achieved!

The new city, which has been christened Fitzgerald for its founder, is admirably planned. With no tumbledown buildings or obstinate landholders to interfere, the work was a labor of love; spacious avenues and wide streets stretch out o'er upland and vale in graceful lines, intersecting at regular intervals and forming residence and business lots of desirable size and shape.

The two central streets are Main street and Central avenue, which divide the city into four wards. These streets are one hundred and twenty feet wide, thus forming a 120-foot square in the centre.

A very graceful and significant feature in the nomenclature of the city is the naming of the avenues. North of Main street they run: Grant, Sherman, Sheridan, Thomas, Logan, Meade, Hooker and Monitor; south of this line they bear the memorable names of Lee, Johnson, Jackson, Longstreet, Gordon, Bragg, Hill and Merrimac.

Half of the cross-streets have received Indian names: Chattahoochee, Ocmulgee, Suwannee, while the remainder indicate typical Southern growths: Magnolia, Cypress, Palm, Jessamine, etc. Thus one familiar with the plan of naming will find no difficulty in locating any quarter of the city.

The city is surrounded by farm tracts of from five to 100 acres, and each shareholder may choose the class he desires, residence, business or farm lot. These are allotted by chance, while every other lot of each class is reserved for sale, the profits to go to shareholders. Allotments are being rapidly made and members are taking possession.

Surely no settlement was ever made under more favorable circumstances. We are getting the perseverance and progressiveness of the West and North, brave men and earnest women, who are working together to one end. Within a twelve-month the giant pines will blossom into stately structures, rolling uplands be converted into blooming gardens and these fragrant "piney woods" be transformed as by magic into a flourishing city, with first-class hotels, a fine hospital and all up-to-date luxuries.

(Mrs.) BEULAH R. STEVENS.

Abbeville, Ga., December 15.

### Wise Men

read the advertising pages of the Manufacturers' Record carefully because they are always sure to find something of value; it may be a special sale, or an opportunity for investment, or some new machinery, or some one looking for a location for a factory, or a thousand and one things advertised that may concern you. Every man ought to study newspapers, not simply glance over them, but examine in detail the Manufacturers' Record, for instance, and he will be sure to find something that can be made profitable in his business. In its news columns and in its advertising pages he will find matter that may prove invaluable in his business operations.



**ARANSAS HARBOR DEVELOPMENT****Several Important Projects Under Way.**

The condition of affairs at Aransas Pass, Texas, at present is exceedingly interesting, and while a number of mere rumors are current relative to its development, there are many reasons to believe that within the next two years a large amount of capital will be invested in different enterprises, such as railroads, wharves, elevators, coal docks and buildings of different kinds. There is no doubt but that the scheme for improving the harbor will be extremely successful, as the latest advices are to the effect that the harbor has been deepened at such a rate that at present a vessel drawing fourteen feet of water can pass through the shallowest part of the channel at low tide. This is a very decided increase over the figures published at the time the work was begun, a few months ago. Among the projects which are now under way is the harbor improvement, which, as is well known, is being undertaken by a syndicate, of which Mr. Alexander Brown, the Baltimore banker, is at the head. In addition to this, a company known as the Aransas Harbor & Dock Co. has been formed, in which it is understood Baltimoreans are interested, with a view of constructing wharves and docks on deep water, where ocean steamers of a large size can load without the use of lighters.

The Aransas Harbor Terminal Railroad Co. is another corporation that has been formed and which has recently, we understand, let contracts for a double-track railroad line seven miles in length, which will extend to the docks and practically control the transportation facilities to the principal portion of the harbor. This will doubtless connect with some road to be built, giving larger systems an entrance to the port. In fact, such an enterprise has been made public under the title of the Rockport & Northern Railroad Co., which, as stated in the Manufacturers' Record last week, is intended to be built from Smithville, on the Missouri, Kansas & Texas system, direct to the harbor, a distance of 145 miles. Baltimore capital has also been invested in this enterprise, so it is stated. The country through which this road will pass is well adapted to railroad building, being very level, thus reducing the cost of construction to a minimum amount. Not only Baltimoreans and outsiders are taking up the matter, but the Texas people also have evinced a deep interest in it, as is shown by the fact that people in the counties traversed by the road have decided to subscribe to the stock, and to donate large tracts of land. It is understood that ex-Governor Wheeler, who was one of the leading spirits in the Aransas Pass improvement project, is lending his influence to this line, also a number of other prominent Texas citizens. At a recent meeting held at Cuero, on the line of the proposed route, an enthusiastic sentiment was displayed in favor of it.

Another enterprise is a scheme to build a large grain elevator, with a view of making Aransas Pass a point for shipping grain from the Kansas and other grainfields to Europe, while still another under way is a stock company with \$250,000 capital, which will locate cattle-yards at Aransas Pass, where stock may be shipped from all points in Texas and the Southwest and kept for export to European points. At a recent meeting of some of the largest stock owners in that section of Texas the matter was taken up, and considerable of the capital necessary to carry out the enterprise was subscribed.

So far but little publicity has been given to any of these matters. It has been known that the capitalists who visited the vicinity of Rockport and saw the natural advantages that Aransas Pass promises for becoming an important shipping point were deeply interested. The result of these visits is now coming to light in the way of incorporations of companies and the activity which is being displayed at this point.

**How Southern Trade Pays.**

Speaking of the success of the Stilwell-Bierce & Smith-Vaile Co., of Dayton, Ohio, in the South, the Atlanta Journal says:

"The Atlanta agency of the Stilwell-Bierce & Smith-Vaile Co., of Dayton, Ohio, has been established for several years, but never before has its able managers recognized so thoroughly as at present that Atlanta is the metropolis of the South, and its best distributing centre, and, best of all, that the South affords the greatest field for development, and that the hour for meeting the demands of this section has come. Mr. G. N. Bierce, the secretary of this staunch concern, who has been spending ten days in our midst, has returned home greatly pleased and surprised with what he saw.

"Mr. John W. Taylor, manager of the Atlanta agency, has gone to Dayton, and the prime object of his trip is to make arrangements to increase the Southern business facilities. A much larger stock will be carried than heretofore, and the traveling force in the South will be increased by several men. It will be a matter of surprise to those unfamiliar with the immensity of the business transacted by the Stilwell-Bierce & Smith-Vaile Co. to learn that during the present year this concern has through its Atlanta agency done a \$200,000 business.

"The great advantage possessed by this company is the great variety of its manufactures. It manufactures steam pumps of every capacity, water-wheels, ice machinery, feed-water heaters and purifiers, heavy gears, power-transmitting machinery, railway-tank equipments, cottonseed-oil machinery, peanut-oil machinery, etc. Thus it will be seen that its field of operation is a wide one, and Atlanta has great reason to be proud of having in her midst a branch of so great an enterprise."

**Pork Better Than Cotton.**

Some time ago the News and Courier, of Charleston, S. C., made a very commendable offer of prizes to farmers who should raise the largest hogs within a certain distance of Charleston. As a result South Carolina farmers have been stimulated to compete for the prize, and it is safe to say that "hog and hominy" are more plentiful in that State this year than for many years past. Mr. L. T. Harmon, of Edgefield county, South Carolina, has sixty hogs fattened which it is stated will average 175 pounds each, or a total of 10,500 pounds. At six cents a pound they would be worth \$630, or as much as fifteen 500-pound bales of cotton at eight cents per pound. The raising of hogs and of food supplies at home will surely place the Southern farmer on a solid basis.

The Huntington (W. Va.) Daily Advertiser has published a trade edition which is a credit to the enterprise of its publishers. It contains an interesting history of Huntington, with descriptions of its business enterprises, manufacturing industries, etc., with well-executed pictures of leading citizens, public buildings and private residences.

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**FINANCIAL NEWS.****Atlanta Exposition Helps Trade.**

A dispatch from Atlanta, Ga., states that the bank clearings in that city during the last three months increased nearly \$3,800,000 over the corresponding period of last year. This is an indication of how the exposition has helped business, as a large proportion of the bank clearings are receipts by local merchants from the visitors to the exposition.

**New Corporations.**

The comptroller of the currency has authorized the First National Bank of Sistersville, W. Va., to begin business with a capital of \$70,000.

Mr. W. H. Venable, of Atlanta, is securing stock subscriptions for a State bank to be opened in that city under the title of the "Venable State Bank."

The Third National Bank has been organized at Atlanta, with \$200,000 capital. It will begin business about January 15. Frank Hawkins, of Winona, Miss., will be president, and J. A. McCord cashier.

The Home Building Association, of Arkansas City, Ark., capital \$25,000, has been organized, with the following officers: James Murphy, president; A. Kimball, C. A. Lacey, H. Thane, Joseph De Marke and J. S. Johnson, directors.

The Farmers' Mutual Fire Insurance Association of Madison County has been organized at Huntsville, Ala., and the following officers elected: President, John B. Hampton; treasurer, John B. Anderson; secretary, James H. Thompson.

Business men of the city are securing stock subscriptions for a new bank at Rome, Ga. It will be operated as a State bank and will be a local institution. Its title is to be the Exchange Bank of Rome. W. P. Simpson and J. A. Glover are among those interested.

A charter has been granted to the Acme Investment Co., of Charleston, S. C. The directors are R. B. Leiby, who is also president; W. G. Harvey, Jr., who is also secretary and treasurer; R. Maxwell Anderson, and P. H. Gadsden. The entire capital stock—\$100,000—has been paid in.

The Merchants & Manufacturers' Fire Insurance Co. of Baltimore has filed a certificate of incorporation. The incorporators are John Edward Hurst, James Franklin Supplee, Aubrey Pearre, Joseph Henry Judik, William Thomas Dixon and Joseph Ramsey Barry, and the capital stock is placed at \$200,000.

A charter has been granted to the Queen Investment Co., of Charleston, S. C. The directors are Lee Loeb, T. Moultrie Mordecai, Isaac S. Cohen and P. H. Gadsden. The officers are T. M. Mordecai, president; Lee Loeb, vice-president, and J. S. Cohen, secretary and treasurer. The entire capital of \$25,000 has been paid in.

The firm of Imboden Bros. & Co. has been organized at Fort Worth, Texas, for the purpose of accumulating and lending money, erecting buildings and doing a general real estate business. The incorporators are J. D. Imboden, of Cherokee county; A. D. Goodenough, of Wise county; L. L. Howes, Alexander Canto and J. D. Imboden, Jr., of Tarrant county, and James Gilford Paige, of London, England. The capital stock is fixed at \$30,000.

**New Securities.**

The Georgia Legislature has authorized the mayor and council of Waynesboro to issue bonds to the amount of \$7000.

Messrs. Frank, Rosenberg & Co., of Baltimore, have purchased \$10,000 worth of 5 per cent. bonds issued by Lynchburg, Va., at 105¼.

The \$200,000 funding bonds of the city of Galveston have been sold, J. & W.

Seligman & Co., bankers, of New York, were the purchasers, and the price paid was par less \$2337 expense for legal opinion and investigation.

**Interest and Dividends.**

A dividend of \$1 per share has been declared by the Suffolk & Carolina Railway Co.

The Merchants and Planters' Bank, of Carrollton, Ga., has declared an annual dividend of 8 per cent.

The board of directors of the Baltimore City Passenger Railway have declared a semi-annual dividend of 5 per cent.

**Financial Notes.**

It has been decided to increase the capital stock of the Newberry (S. C.) Savings Bank from \$15,000 to \$100,000, and subscription books are to be opened to obtain the additional stock.

**Cattle and Grain Shipments.**

The question of shipping cattle from New Orleans seems to be regarded very favorably by railway officials. While in that city recently General Manager Thorne, of the Texas & Pacific system, made the following statement to a Picayune reporter:

"For the past year we have been agitating the feasibility of shipping cattle on the hoof from New Orleans to the ports of Europe. Since the inception of this business New York has done the lion's share of the trade, and it has increased to such an extent that it is a large contributor to the welfare of the port in question. The cattle come from the West, and there is no reason why they should not seek a nearer port than the far East. We have been discussing the matter with a number of the large handlers of live cattle, and have on several occasions brought to New Orleans small parties of business men from the West and Chicago, and showed them the facilities that the port affords for this particular traffic. The contention has been made that the climate is too warm, and that live cattle will suffer for this reason if shipped via this port. This, however, has been demonstrated to be untrue."

In last week's issue of the Manufacturers' Record reference was made to the shipment of 170,000 bushels of corn from Galveston, a port in as warm latitude as New Orleans. This fact, added to Mr. Thorne's statement, tends to show that another prejudice which has operated to keep business from Southern seaports is being removed.

**A New Oilfield.**

A dispatch from Parkersburg, W. Va., announces that what seems to be a valuable oilfield has been found in the suburbs of the city. A test well was recently sunk to the depth of 700 feet and is now producing a large amount of oil daily. As a result the attention of oil speculators and investors has been drawn to that section, and leases of lands for several miles around, according to the dispatch, are being taken with a view of placing wells upon the property.

A business league has been formed at Alexandria, Va., with the following officers: President, M. B. Harlow; first vice-president, Isaac Eichberg; second vice-president, Worth Hulfish; treasurer, J. W. May.

Managers of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises and needing machinery or supplies of any kind will find it profitable to consult the advertising columns of the Manufacturers' Record. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.



## RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

## RAILROAD BUILDING IN 1895.

Nearly 700 Miles Constructed in the South—Increase Over 1894—Important Roads Under Way.

With this issue the Manufacturers' Record presents its summary of railroad construction in the South for 1895. The figures indicate that railroad builders are still actively at work in this section. While several large systems are being completed, such as the Kansas City, Pittsburg & Gulf, which built 117 miles of new line during the year, the record is notable for the number of small roads intended to give timbermen, miners of ore and coal and cotton-mill operators an outlet to market for their products, which have been completed as well. The list given only refers to standard-gage lines for regular service, and does not include private or electric roads.

In addition to the new mileage a large amount of reconstruction has been in progress during the year. The Augusta Southern was changed from narrow to standard gage in Georgia, also the Elberton branch of the Southern in the same State, and the Tyler Southeastern division of the St. Louis Southwestern in Texas. The three lines represent 225 miles in all. During 1896 about 300 miles of the Plant system will be rebuilt in middle and South Florida.

Included in the 692½ miles of new road in the South in 1895 are several important lines. In Louisiana the New Orleans & Western forms practically a belt around the city and forms the route to the new port on the Mississippi river, Chalmette. In West Virginia the Charleston, Clendennin & Sutton is half completed. It will form a new east and west line across the State and will doubtless be in operation its entire length during the coming year. A number of important roads are about to be built in this State to further develop the coal beds. Among them is the Virginias Railway, which is to traverse the Guyandotte valley and terminate at the Ohio river. In Virginia the Chesapeake & Western is being built across the State to Chesapeake bay and will form a new route from the West Virginia coalfields to tidewater. Nearly thirty miles were completed during the past year, according to the statement of the chief engineer. In Georgia several branches to cotton factories and other industrial plants constitute the principal mileage; but so many have been built that the State makes a showing of nearly sixty miles. With the rebuilding of the Augusta Southern it really shows nearly 150 miles of standard-gage line. The summary in Alabama represents two lines to cotton-mill towns, one now under construction, and two short mining roads, although over 200 miles of new road may be built in this State in 1896, as several important enterprises have been planned.

Texas again leads, as might be expected. The new mileage, 218, is more than double that of 1894. It includes the Gulf & Interstate between Beaumont and Galveston, sixty-nine and one-half miles, and the Galveston, La Porte & Houston, thirty miles; also the Rio Grande Northern, an important feeder of the Southern Pacific from the San Carlos coalfields. While the record shows much activity in the State in railroad construction, the indications are that considerable work will also be done in 1896. In Maryland a beginning has been made on the line from the Chesapeake bay to the seaboard, which, with branches, will aggregate 133 miles. The enterprise has already been

detailed in the Manufacturers' Record. The Hendersonville & Brevard road, completed in North Carolina, is an important feeder of the Asheville division of the Southern system. The Aberdeen & West End, in the same State, was originally built for a logging line, but the owners have found it so profitable that it is being extended to Troy, N. C., making its total length forty miles. It is a feeder of the Seaboard Air Line.

As might be expected, Florida has been the centre of active operations in this line, and has 105½ miles to its credit—more than any other Southern State except Texas. Early in the year the Biscayne bay extension of the Florida East Coast Line (Flagler system) will be completed. It is sixty-seven miles long and is the most important project now under way. The other lines range from ten to twenty miles each and have been constructed, as a rule, in portions of the State without proper transportation facilities. In Kentucky work has begun on a short branch or "cut-off" of the Louisville & Nashville at Christianburg, and companies are preparing to construct several roads in the eastern part of the State.

The tabulated statement of construction follows:

## Mileage for Five Years.

	1891.	1892.	1893.	1894.	1895.
Maryland .....	3	17	12	9	8
Virginia .....	200	21	14	16	38½
W. Virginia .....	111	261	105	66	55
N. Carolina .....	106	45	112	14	47½
S. Carolina .....	200	51	20	50	6
Georgia .....	270	81	171	83	57½
Florida .....	86	157	208	63	105½
Alabama .....	162	31	84	9	20
Mississippi .....	8	5	6	5	5
Tennessee .....	220	90	33	82	15
Kentucky .....	31	44	35	19	8
Louisiana .....	153	85	36	32	44
Arkansas .....	95	15	61	55	65
Texas .....	127	247	216	83	218

Total .....

## RECORD OF CONSTRUCTION.

## South Carolina.

Atlantic Coast Line, branch, six miles.

## Arkansas.

Kansas City, Pittsburg & Gulf (Arkansas extension), sixty-five miles.

## Texas.

San Antonio & Gulf Shore, fifteen miles.  
Gulf, Beaumont & Kansas City, sixteen miles.  
Gulf & Interstate, sixty-nine and a-half miles.  
Galveston, La Porte & Houston, thirty and a-half miles.  
Rio Grande Northern, twenty-six miles.  
Warren & Western, six miles.  
Texas & Pacific, Denison branch, seven-tenths miles.  
Missouri, Kansas & Texas, Wichita Falls branch, eighteen miles.  
Kansas City, Pittsburg & Gulf (Texas extension), twenty miles.

## Florida.

St. Mary's, Lake City & Gulf, seventeen miles.  
Gainesville & Gulf, ten miles.  
Brunswick & Pensacola, eleven miles.  
Atlantic, Suwannee River & Gulf, ten miles.  
Live Oak & Gulf, ten miles.  
Plant system, South Florida division, four and a-half miles.  
Peace River Phosphate Co. (for regular service), eighteen miles.  
Florida East Coast Line, twenty-five miles.

## Maryland.

Queen Anne's, eight miles.

## Kentucky.

Louisville & Nashville branch to Christiansburg, five miles completed.  
Mining branch, three miles completed.

## North Carolina.

Hendletta branch, Seaboard Air Line, four and six-tenths miles.  
Durham & Charlotte, two miles.  
Caldwell & Northern, two and a-half miles.  
Hendersonville & Brevard, twenty-one and seven-tenths miles.  
Aberdeen & West End, fifteen miles.  
Oxford & Coast Line, two miles.

## Louisiana.

Southern Pacific, branch, twenty-seven miles.

New Orleans & Western, nine miles.  
Illinois Central, branch, six miles.  
St. Louis, Avoyelles & Southwestern, two miles.

## West Virginia.

Clendennin & Spencer, sixteen miles.  
Roaring Creek & Bellington, twelve miles.  
Charleston, Clendennin & Sutton, twenty-five miles.  
Panther River, two miles.

## Tennessee.

Holston Valley, fifteen miles.

## Virginia.

Chesapeake & Western, twenty-seven miles.  
Big Stony Creek Railroad, ten miles.  
Atlantic & Danville, branch, one and a-quarter miles.

## Mississippi.

Chickasawaha & Jackson, five miles.

## Georgia.

Chattahoochee Valley, six miles.  
Valdosta Southern, fifteen miles.  
Tifton & Northeastern, sixteen miles.  
Plant system, branch from Douglas to McDonald's Mill, nineteen miles.  
Southern Company, Atlanta Exposition branch, one and a-half miles.

## Alabama.

Tennessee Coal, Iron & Railroad Co., two miles.  
Louisville & Nashville, branch, three miles.  
Tallassee & Montgomery, two miles.  
Louisville & Nashville, Prattville branch, eleven miles.  
Welsh's Mill & Centreville, two miles.

## Important Projects.

Among the important lines projected by responsible companies to be constructed during the next year are the following:

Kansas City, Pittsburg & Gulf—Being built from Kansas City to the Gulf of Mexico, 770 miles, 383 miles completed; also extension to Shreveport, La., thirty-five miles.

Queen Anne's—Queenstown, Md., to Lewes, Del., (and branches) 133 miles (under way).

San Antonio & Gulf Shore—San Antonio, Texas, to the seaboard, 240 miles.

Chesapeake & Western—West Virginia coalfields to Chesapeake bay (under way).

Florida East Coast Line—Extension, Palm Beach, Fla., to Miami, sixty-seven miles (under way).

Columbia & Maryland (electric)—Baltimore to Washington, about thirty-five miles (under way).

Charleston & Macon—Charleston, S. C., to a point in Tennessee.

Georgia & Alabama—Extension, Lyons to Savannah, Ga., about seventy miles.

Ohio River & Charleston—Connection of Tennessee and Carolina divisions and extension to Charleston or Port Royal, S. C.

Fernandina Western—From Fernandina, Fla., to a point on the Georgia Southern & Florida.

St. Louis, Avoyelles & Southwestern—Through Bunkle, Simmsport and Marks-ville, La., thirty-six miles (under way).

Carolina Midland—Extension to Greenwood, S. C.

Tennessee Central—Nashville to Knoxville, Tenn. (under way).

Charleston, Clendennin & Sutton—Charleston to Sutton, with branches, 100 miles (under way).

The Virginias Railway—Huntington, W. Va., through Guyandotte valley.

West Virginia, Ohio & Western—New Martinsville, W. Va., to Clarksburg, eighty miles.

Rockport & Northern—Aransas Pass, Texas, to connection with Missouri, Kansas & Texas, 145 miles.

Gulf & Ship Island—Extension, Gulfport, Miss., to Hattiesburg, fifty-two miles (under way).

## The Georgia &amp; Alabama.

President John Skelton Williams, of the Georgia & Alabama Railroad Co., has recently been in Savannah, and, according to the News of that city, states that the company has now \$1,000,000 cash ready to acquire or build an extension of the road into Savannah. President Williams states that the Savannah extension will be in operation within the next year. Already General Manager Cecil Gabbett has begun the work of reconstructing the road and placing it in an excellent condition physically by rebalasting wherever necessary and relaying a number of sections with heavy steel rails.

## President Mayer Resigns.

Mr. Charles F. Mayer has tendered his resignation as president of the Baltimore & Ohio system and it has been accepted. Mr. Mayer, however, will remain at the head of the company until his successor is appointed.

It is understood that the resignation is the second step in a change in conducting the affairs of the Baltimore & Ohio and in outlining its policy. The first was taken at the recent annual meeting, when Messrs. Eugene Delano, William A. Reed, Howland Davis and Louis Fitzgerald, of New York, succeeded an equal number of Baltimoreans in the directory. Since the dissolution of the voting trust in the stock of the road it is stated that quite an amount has passed into the hands of New York and foreign investors, while extensive purchases of its bonds have been made, it is also understood, by such firms as Drexel, Morgan & Co. and others. The foreign and New York interests are said to have decided upon the four new directors mentioned, and the latter favor a radical change in the administration of affairs. Mr. Mayer has been at the head of the system for seven years. His successor may be one of the following directors: Mr. Alexander Shaw, of Baltimore, or Mr. Fitzgerald. Whoever is elected will be an official in accord with the views of the outside security-holders.

It is thought by some that there are reasons for believing that President Samuel Spencer, of the Southern Railway Co., may be also president of the Baltimore & Ohio in the near future. Mr. Spencer was Mr. Mayer's immediate predecessor, and left the office to associate himself with Messrs. Drexel, Morgan & Co., for whom he acts as president of the Southern. While Mr. Spencer may not be president of the Baltimore & Ohio, the Manufacturers' Record expects to see the fulfillment of its prediction made a year ago of a close connection between the Southern Railway and the Baltimore & Ohio and their control by practically the same people.

## New Route to Atlanta

A company has recently filed articles of incorporation at Albany, N. Y., under the name of the Atlanta, Knoxville & Northern road. It is given out that it is to deal in railroads and railroad equipment of all kinds. The capital is \$92,000, and the directors are Messrs. Charles E. Kimball, Summit, N. J.; Matthew McLanahan and George Mumford, of New York. The amount of capital is the exact amount for which the Marietta & North Georgia road was recently sold at a receiver's sale. Some time ago it was stated in the Manufacturers' Record that a scheme was under way by which a new system between Atlanta and the North may be formed by the extension of the Norfolk & Western Railroad from its present terminus at Bristol, Tenn., to Knoxville, and by the extension of the Marietta & North Georgia to Atlanta. As the Southern and the Seaboard Air Line are the only direct routes at present between Atlanta and the North, another line of this character would seem to be practical. The system would be formed by utilizing the Knoxville, Cumberland Gap & Louisville, the Marietta & North Georgia, the Norfolk & Western and building connections as stated. It is understood that the Mr. Kimball who is mentioned in the new company is a brother of Receiver F. J. Kimball, of the Norfolk & Western Railroad. In this connection it may be mentioned that a new company, called the Knoxville, Cumberland Gap & Louisville Railroad Co., has been formed, with a charter granting the company the right to construct a railroad from Knoxville to Cumberland Gap and to acquire all the mileage of the old



Knoxville, Cumberland Gap & Louisville. The incorporators include Messrs. Ethelbert Fairfax, Leonidas F. Wynne and Jonathan Tipton.

#### What He Thinks of East Tennessee People.

Mr. W. M. Crawford, of Columbus, Ohio, has written a letter to Mr. A. E. Boone which the Knoxville papers seem to be delighted to publish, in which he says:

"For half a century the gaze of capital and enterprise has been turned toward the grand possibilities of Eastern Tennessee, but the lethargy of its people, their unwillingness to admit strangers to their confidence, has kept back the tide of wealth that would have flowed in rivers upon them had they encouraged the development of the resources that are so apparent to observing men.

"You, Colonel, are the Moses that has been chosen to lead these people out of the wilderness, and you'll do it."

How very kind of Mr. Crawford to explain why the "tide of wealth" has not heretofore "flowed in rivers" upon East Tennessee. The people of that section ought to rejoice that "their lethargy" and "their unwillingness to admit strangers to their confidence" can no longer stand in the way, for a Moses has come to lead them out of the wilderness.

#### Cars for Norfolk & Western.

The Norfolk & Western has recently contracted with the Ensign Manufacturing Co., of Huntington, W. Va., to build 500 gondola cars. The cars will be of a large size and will be supplied with Henson couplers. An order has also been placed with the Lenoir Car Works, of Lenoir City, Tenn., for 100 box cars, with a capacity of 60,000. These cars will be of the latest improved designs and equipped with the master car-builders' couplers and Westinghouse brakes.

The Roanoke (Va.) Machine Works has now under construction a sample car of thirty tons capacity, the frame of which will be made of iron. The building of this car is merely an experiment and it will be tested at once. If it stands the rough handling which many of the wooden frame cars fail to stand, others will be built in the near future. This car will be equipped with couplers and air brakes. The increased demand for cars to supply the iron ore demand, it is stated, has taken nearly all the low capacity gondolas out of the coal trade, hence the necessity for more and larger coal cars.

#### In New Hands.

The North Alabama Railway Co. is now in possession of the properties of the Birmingham, Sheffield & Tennessee River Railroad, which was sold at receiver's sale last September. The owners have reorganized, and have issued their first circulars, in which the following are appointed officers: Robert E. Tod, president; John J. Collier, treasurer; Louis James Phelps, secretary; Samuel Hunt, general manager; R. T. Simpson, general counsel. The road runs from Jasper to Sheffield, Ala., a distance of sixty miles. The present owners are New York parties.

#### Ready for Business.

A dispatch from New Orleans, La., states that already Port Chalmette, just below the city, has been opened for business and that a European steamship has been loading cotton. While the parties who own Port Chalmette, and the principals of the New Orleans & Western Railroad Co., are not definitely known, it is understood that the gentlemen who visited the new town a few weeks ago from Boston and New York are some of the

capitalists who have money invested there. As already stated in the Manufacturers' Record, it has been completed within a few months, and is a remarkable illustration of the rapidity with which some portions of the South are being developed. The indications are that it will be one of the most important shipping points in the city within the next few years.

#### A Reported Combination

It is reported that the Ohio River & Charleston Railroad Co. has been made a proposition by the Southern Company with a view of leasing the former road. In case this is done it is stated that the Ohio River & Charleston may be completed across the mountains from the present terminus in South Carolina to the Tennessee extension at Johnson City. If this is done the Southern would have another line, which, with the extension of a few miles in South Carolina, would form a trunk line between tidewater and the Ohio river. It was the original intention to build the road, at least between Charleston and Cincinnati, and this is indicated by the original title, "Charleston, Cincinnati & Chicago." A Tennessee dispatch states that contracts are now being let for an extension from Johnson City, and, taken in connection with the Southern report, this is very significant.

#### Plenty of Business.

A report from Yorkville, S. C., states that the Chester & Lenoir road is overrun with business. It cannot handle all the freight offered promptly, owing to a lack of sufficient rolling stock. The present management took charge about eighteen months ago, when the road was surrendered by the Richmond & Danville outfit, and had no funds on hand to equip the road. It has succeeded in paying operating expenses, interest on its bonds, taxes, etc., but has not yet been able to buy new cars and locomotives. The outlook now is that the management will soon be in a position to improve the equipment of the road.

#### A Tennessee Reorganization.

The railroads of the Harriman Coal & Iron Co. under the reorganization plan will be operated by what is to be known as the Harriman & Northeastern Co. The incorporators are: Isaac K. Funk, James D. Roberts, Clevan Dinges, William B. Winslow, Linus S. Freeman, Jas. E. Rhodes, Daniel Denny and Don Alexander. The capital stock is fixed at 6000 shares at \$100 par value. Bonded indebtedness is limited to \$300,000. The directors represent the reorganization committee of the East Tennessee Land Co. It covers its line in Roane and Morgan counties. The following officers have been elected: President, I. K. Funk; vice-president, J. D. Roberts; secretary, W. B. Winslow; treasurer, Clevan Dinges; directors, L. S. Freeman, Don Alexander, Daniel Denny and J. E. Rhodes.

#### To Erect a Car Factory.

The American Car Co., of Boston, Mass., is now traveling in the South with the view, it is understood, of building a plant for the construction of sleeping and parlor cars at some point of advantage. The officers of the company occupy a car of the kind which is to be made. It is a combined parlor, observation, dining and sleeping car, and is elegantly finished and appropriately furnished. The berths are made up by pulling up movable sections of the floor. The chairs which are in use in the daytime are stowed under the lower berths, and in this way a combination of the parlor and sleeping car is effected. Mr. Geo.

A. Denham is general manager of the company.

#### Extending the Gainesville & Gulf.

Mr. James M. Graham, of Gainesville, Fla., writing to the Manufacturers' Record about the Gainesville & Gulf road, of which he is secretary, says:

"The Gainesville & Gulf Railroad Co. has completed and in operation twenty-seven miles of railroad. It is standard gage, laid with 60-pound steel rails. It has also sixteen side tracks, nine depots, two locomotives, one passenger coach, one box car and five flat cars. It has a satisfactory traffic arrangement with the Florida Central & Peninsular, and during the past year operated the road at an expense of less than 50 per cent. of its gross earnings, over 50 per cent. of the same being net profit.

"The company wants to extend its road about seventy-five miles further south to Tampa Bay and issue 20-year first mortgage 6 per cent. gold bonds at rate of \$5000 per mile on the road now operated and on the extension as each additional fifteen miles are completed. This road is located through the best vegetable, farming, hard rock and phosphate land in the State. It has a land grant of 14,000 acres per mile. During the coming season, with better facilities for handling and the increased acreage that will be planted in vegetables, it is believed that the gross earnings will increase about 100 per cent. The next fifteen miles will reach the Withlacoochee river and Dunnellon, passing phosphate mines representing a present output of 225,000 tons per annum and placing other valuable phosphate lands on lines of transportation, which at present are not near enough to be worked. All these mines have agreed to ship their product over this line when extended and at such a rate as will allow this road a large profit. Several saw mills and naval stores plants are being erected on this extension. The largest saw mill in the State is just completed on the Withlacoochee river on the line of this extension."

#### Colonies in Florida.

The State of Florida is attracting many immigrants, as is shown by the location of colonies in nearly all sections. Michigan, Wisconsin, Indiana and a number of other Western States have sent large delegations of people, who have determined to locate on the rich lands which have been reclaimed by drainage and which they have learned will produce so largely of vegetables suitable for shipment to early market. Reports from different sections of the State indicate that the immigration movement is perhaps more extensive this year than ever before. As a result a large amount of capital will be invested in these sections which will be of great benefit in developing territory which hitherto has been practically waste land. The section of East Florida along the extension of the Florida East Coast Railroad, between Palm Beach and Biscayne bay, is attracting special attention. Through the energy of Land Commissioner Ingraham, of this road, several colonies have already been located upon it.

#### Railroad Notes

The Baltimore & Ohio Company has declared a semi-annual dividend of 3 per cent. on its preferred stock.

The directors of the Tennessee Coal, Iron & Railroad Co. have elected Mr. Hugh M. Inman a director to fill a vacancy.

The Knox, Sevier & Jefferson Boat Co., of Knoxville, Tenn., is building a light-draught steamer to ply on the Tennessee river.

The Norfolk & Western Railroad Co.

has decided to construct five miles of double track on the Elkhorn division where its traffic is heaviest.

The Fort Valley & Perry Telephone Co., of Fort Valley, Ga., met Saturday night and has declared a dividend of 24 per cent. on the capital stock.

The Louisville Railway Co is experimenting with a new motor operated by gasoline. It will be first tried on a suburban line now operated by mules.

Mr. A. H. Gardner has been appointed general freight and passenger agent of the Natchez, Red River & Texas Railroad Co., with headquarters at Vidalia, La.

A recent shipment over the Louisville & Nashville consisted of five carloads of cotton sent from Anniston, Ala., to Raval, Russia. It was loaded on a steamship at New Orleans.

A dispatch from New Orleans, La., states that the compressed-air locomotives used for hauling trains in the yards of the New Orleans & Western road at Port Chalmette have been tested and found to be entirely successful.

The Wheeling & Moundsville street railway line has been opened for operation. The line extends from Wheeling, W. Va., twelve miles south to Moundsville, through a number of suburbs, and was built at a cost of \$200,000.

The St. Louis, Iron Mountain & Southern Company, in connection with the Texas & Pacific and Southern Pacific, is now running a through line of sleepers from Memphis to Los Angeles, Cal., making the run in three and one-half days.

The officers of the Roaring Creek & Belington road, which is now completed, are S. B. Diller, president, Betz Building, and H. C. Terry, vice-president, Hale Building, Philadelphia, Pa.; T. F. Wilson, general manager, and T. C. Black, chief engineer, Belington, W. Va.

Circulars have been issued announcing the appointment of Mr. J. W. Carr as district passenger agent of the Plant system, with headquarters in Savannah, to succeed Mr. W. V. Lifsey, who was recently made division passenger agent, with headquarters at Montgomery.

The Texas railroad commission has authorized the Gulf & Interstate Railroad Co. to issue bonds to the amount of \$1,029,000 for seventy miles of road between Beaumont, in Jefferson county, and Bolivar Point, in Galveston county. E. De Normandie, at Galveston, is president.

The Perry Boat-Building Co., of Chattanooga, Tenn., has closed a contract with the Tennessee River Iron Ore Co., of Kingston, Tenn., to furnish the company with five barges to be used in conveying iron ore from the mines in the vicinity of Kingston to the South Pittsburgh furnaces. The barges will be about 120x26 feet, and will have a capacity of 500 tons of freight each.

A special reduction in rates has been announced by the Southern Railway Co. to the Atlanta Exposition from Washington and other points on its line, tickets on sale December 19 to 25, inclusive, good five days from date of sale, the rate from Washington being \$8.75 for the round trip, distance of 1300 miles. These are said to be the lowest rates ever authorized for any similar occasion.

The Alabama Great Southern Railway Co. is showing a commendable spirit in offering prizes to the roadmaster whose section is found in the best condition as to ballast, rails, etc. It is stated that this year the road is in such excellent condition that four of the sections are very nearly equal as to quality, and it is a question as to which roadmaster will receive the prize. This idea could be followed up by other railroad companies in the South with excellent results.



## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

### Building of Cotton Mills in the South

The commercial agencies, owing to the character of their work, must necessarily be extremely cautious and conservative; hence the views of their agents, when based on thorough investigations, carry much weight. In direct support of all the claims made by the Manufacturers' Record in behalf of cotton manufacturing in the South, Mr. John A. Donovan, the Southern manager of Dun's Commercial Agency, in an interview in the Atlanta Constitution, says:

"The South must inevitably become the centre of cotton manufacturing. The growth of the world's population has an increasing momentum like to a geometrical progression. Cotton cloth is universally used in every part of the terrestrial sphere. The demand, notwithstanding temporary checks, will possibly double in another twenty years. A 20,000,000-bale crop of cotton will be reached before the expiration of the first quarter of the twentieth century. Lancashire mills as well as New England mills may continue to hold their own and make a profit, but for every new mill built in either of these localities during the next twenty years there will be a hundred mills in the Southern States on the edge of the cotton-fields.

"Anyone familiar with the financial record of Southern mills cannot help being profoundly impressed with the wonderful results of what might be termed comparatively crude methods, as contrasted with the almost scientific perfection of the older and more experienced sections. It must, however, be borne in mind that the days of crudity are passing. There have been many mills built that brought nothing but loss to the public-spirited projectors. The older merchants of Atlanta have tucked away in their ledgers of twenty years ago thousands of dollars charged to profit and loss that were invested in a cotton mill.

"Within the past twenty years several sections of the South have produced cotton-mill managers of the highest order of ability. To mention names would be invidious, but it would be easy to recall the names of half a hundred of such men, to whom we owe as much for successful cotton milling as to our remarkable natural advantages. These men are, as a rule, the product of their own environments and owe their success to thorough study and application. It is from these men that soft notes of warning are occasionally heard, warning the people to be careful and go slow. It is not a case of 'dog in the manger,' as is sometimes hinted. On the contrary, these men of brains know that even with all of our advantages disaster and possibly damage to the future of the industry is probable by what might be termed a 'panic' for mill building. 'Fools rush in where angels fear to tread,' or words to that effect, are applicable.

"Nothing in these warnings need deter any community in Georgia, within the reach of the natural advantages of cotton at first hands, coal at a cost of a fraction above mining and intelligent white labor, from building mills, provided always that the executive or managing element is selected solely because of ability and without reference to local interest.

"In the history of New England cotton manufacturing it is shown that in the days of small mills, and even in these days of very large enterprises, it frequently occurs that the same executive or managing officers presided over several mills. Here is a hint for small mills. Let

several of them select the same man for their president, consulting thereby economy, while securing brainy officers.

"I should like very much to quote the cold-steel-like figures from the financial history of a score of Southern mills that I have in mind, but this would be a breach of confidence. A specimen that might find a parallel in a dozen mills is the case of one mill of twenty years' standing. The original investment of the stockholders was \$200,000. The capital has been increased from time to time from the profits of the business until it is now \$800,000 and has besides a surplus of \$800,000. But even this was not enough for this paragon, inasmuch as it has always paid an 8 or 10 per cent. dividend each year on its original capital stock. Of course it goes without saying that brains of the highest order are employed in this enterprise, together with the most perfect natural advantages possible to be obtained. These are the possibilities that insure the future of cotton milling in the South, when conducted by people who possess the qualifications, training and experience."

### South Carolina's Cotton Manufacturing Progress.

\* \* Nor is the developing of manufacturing in the Palmetto State any less marvelous than the productiveness of its soil. In line with her sister States of the South, and in advance of many of them, South Carolina is experiencing an industrial awakening which gives splendid opportunity for the development of her rich resources. South Carolina is going steadily forward, building mills. In 1880 there were fourteen cotton mills in operation; in 1887 there were twenty-nine; in 1894 there were fifty-nine, with charters issued to the 1st of May for five new mills. Her spindles and looms now number nearly one-third of the total number in the South. In the single county of Spartanburg there are sixteen different companies and twenty-two separate mills, operating 350,500 spindles and 12,000 looms, consuming annually 150,000 bales of cotton, employing 8000 operatives, and paying out in wages and for cotton nearly \$10,000,000 a year. When it is remembered that to the 13,000,000 spindles of the North the cotton is hauled from 1000 to 1500 miles, we can better appreciate the advantages to South Carolina of setting up her millions of spindles beside the cotton-fields and eliminating the heavy cost of transportation. It is a notable fact that during all the stringency of the past three years the mills and factories of South Carolina found it profitable to continue their work on full time, with never a stop, and even paid 8 to 12 per cent. dividends, while the other mills are today enlarging their plants some 50 per cent. from the earnings of the past few years. They have not only stood the pressure of hard times, but have actually made money, in some instances a great deal of money.

South Carolina will one day be one of the most wealthy and prosperous States in the Union, if it will strive to attain a more exalted standard of political honesty, turn away from political charlatans and demagogues, cherish the teachings of the federal constitution and encourage the economic policies which have made her what she is today in prosperity and substantial worth.—New York Mail and Express.

### Another \$500,000 Mill Reported.

It is reported that Mr. Frank Cox, proprietor of the Highland Park Hotel at Asheville, N. C., has purchased the Big Island Shoals on Broad river, S. C., for \$20,000. It is said that Mr. Cox will develop this water-power and erect a \$500,000 cotton mill.

### An 8000-Spindle Mill.

The mill building at Bessemer City, N. C., will be equipped by the recent purchasers of it. S. J. Durham is secretary and treasurer of the new company, which has been incorporated as the Southern Cotton Mill, in which the Odells, of Concord, N. C., are principal stockholders. The order for machinery has been placed, and the mill will be started in the spring, with an equipment of 8000 spindles and 362 looms.

### Textile Notes.

Mr. L. P. Walker is trying to organize a cotton-mill company at Spartanburg, S. C., and has himself subscribed a large sum.

A report states that Mr. Walker Richardson and associates, of Louisville, Ky., contemplate building a large woolen mill in that city.

A plant to be known as the Camp Cordage Factory will be established at Jackson, Miss. Plans for same are now being figured on.

Cherry Cotton Mills, of Florence, Ala., have just closed a contract with O. H. Sampson & Co., Boston, for a large quantity of the finer grade of yarns. Mr. Sampson came in person to close the deal.

Mr. Walter G. Stearns, of New York, who has been operating the Virginia Silk Mills at Fredericksburg, Va., has purchased the plant. Considerable new machinery was recently put in and improvements made.

A Rhode Island capitalist and members of the Cotton Exchange at New Orleans, La., have been consulting about the erection of a big mill at New Orleans. There is a strong probability that the plant will be located.

The new Birmingham Cotton Manufacturing Co., of Birmingham, Ala., is rapidly getting its plant ready for operation, and hopes to start by January 1. The outfit of machinery is now being installed as fast as it arrives. Daily capacity of mill is to be 1600 pounds.

An Athens (Ga.) special says: "J. F. McPherson, of Erie, Pa., an experienced contractor, is in the city. He comes at the instance of a party of Pennsylvania gentlemen, who are desirous of establishing a big cotton mill in this section, for the purpose of examining the shoals in the river."

At a meeting of the directors of the Whitney Manufacturing Co., of Whitney, S. C., held last week, it was decided to greatly enlarge the mills. Col. Jno. B. Cleveland, president, has already placed contracts for the brick and lumber for the additional buildings. This plant has at present 10,000 spindles and 310 looms.

The new mill at Winston-Salem, N. C., of the Southside Manufacturing Co., H. E. Fries, president, is practically completed and will start up in January. The buildings are 102x228, one story, with the opening room 50x60, two stories; boiler-house 40x42. This is a yarn mill, with 5000 spindles running on 16s to 30s single ply.

F. H. Fries, of the Mayo Mills Co., states that the Mayo Mills, Mayoden, N. C., are under roof and the buildings nearly ready for occupancy. The machinery is coming in and they hope to get started in January or February next. This is to be a spinning mill, the product to be mulespun hosiery yarns, from twelve pairs of Mason mules.

The Elmira Cotton Mills, of Burlington, N. C., have about finished the addition to their plant, in which will be installed 600 looms, mostly Crompton. Included in this number are the 256 looms now running in the present factory, but which will be removed to the addition. Spinning

machinery will take their place, bringing the spindles up to over 10,000.

The Charleston Knitting Mills have been organized at Charleston, S. C., and elected W. Gregg Chisolm, president and general manager; R. Bee Leiby, secretary-treasurer, and Mordecai & Gadsden, solicitors. The company will equip a plant at once, and thirty-five operatives will be employed. Charter has been obtained, with capital stock at \$50,000.

It is announced that Mr. Aretas Blood, of New Hampshire, president of the Columbia Mills Co., at Columbia, S. C., has interested New England capitalists, who have decided to build another big mill at Columbia. The extensive enlargements to the canal and the erection of an electric-power plant have been commenced, and the latter will furnish 6000 horsepower when completed to the Columbia mills and other factories.

The Enterprise Mills, of King's Mountain, N. C., a short time ago added eighty Knowles-Stafford looms, and will probably in the near future add twenty more. The company has also put in a slasher, Draper beamer, a folder and inspecting machine, a fire pump which pumps 500 gallons a minute, built a reservoir which holds 62,000 gallons of water; also built fifteen tenements. C. C. Randleman is superintendent and C. E. Falls secretary-treasurer.

The Piedmont Manufacturing Co., of Piedmont, S. C., has completed its new building and is about to put in machinery. This is the company's mill No. 4, and it is four stories high, 102 feet by 136 feet, and will contain 10,000 spindles. It was designed by Lockwood, Greene & Co., the famous mill engineers of Boston, and has all the modern improvements in the way of sanitation, ventilation, lighting, heating and fire protection. Steam heat will be used and a complete system of elevators.

The Dilling Cotton Mills, King's Mountain, N. C., will put in their new addition, now building, twelve Pettee cards, drawings, speeders, etc., whereon, whenever required, will be mounted metallic rolls; also 5500 spindles and 200 looms, whereon will be woven 64x64 and 68x72 sheetings. When the extra looms are added the Dilling mill will contain 553 looms, and they contemplate adding enough to make it count 700 in the near future. Each loom averages forty-six yards per day. G. G. Boone is overseer weaving and J. M. Williams superintendent.

The big \$600,000 mill reported last week as to be built at Rome, Ga., has already prospects of being a \$1,000,000 plant. Mr. W. B. S. Whaley, of Columbia, S. C., a well-known mill engineer, and engaged for the new plant, has made a proposition to make the capital stock of the new mill \$1,000,000 instead of \$600,000, as already decided upon, and offers to raise the additional \$400,000. Mr. Whaley is reported as being so convinced of the superior advantages of the site selected that he considers a 100,000-spindle mill should be established. It is claimed that this is to be the largest print mill in the South, and light-weight goods will be made a specialty.

### The Battleship Contracts.

A dispatch from Washington states that the government will probably decide to award the contract for the two battleships in favor of the Newport News Shipbuilding & Dry Dock Co. and the Union Iron Works, of San Francisco, each company securing a vessel. There is a possibility that the Newport News Company will secure both. The Cramps' proposition to build three ships after their own plans, it is understood, will be rejected.



## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

## The Cotton-Oil Situation.

Elbert & Gardner, of New York, in reviewing "the cotton-oil situation," say:

"The present milling season in cotton products has at this date sufficiently advanced to permit the forming of a fair estimate of the size and other features of the season's crush of seed as compared to former seasons, and especially to that of 1894-95.

"As regards the quality of the product the reports are mainly favorable, and it appears that the dry weather, which has been so general in the Southern States during the maturing season of the crop, while cutting the yield disastrously short in many sections, has at the same time admitted the gathering of the cotton and seed in good condition, and in consequence this year's product of oil, cake and meal, made thus far, compares well in quality with the product of former seasons. Quite lately the weather has been less favorable, and a succession of rain and sleet storms in the Southern States may result in a somewhat poorer product from now forward.

"It is, however, in respect to the quantity of seed crushed that the reports received give the most unfavorable account, and it seems certain that the production of oil and cake and meal will show a heavy decrease as compared to last year, much heavier, in fact, than estimates heretofore entertained in the Northern States of this country or in Europe. The falling off in the production may, in fact, be described as unprecedented in the history of the cotton-oil industry.

"The conclusion that must follow these reports is that the unfavorable conditions of oil-milling are common to every one of the Southern States, and that the exceptions are few in number and confined to relatively small stretches of territory. The supposition that the poor Texas returns will be counterbalanced by a better outturn in other sections of the South lacks basis. Conditions in other States are hardly any better than in Texas; to the contrary, the present state of affairs in Texas is really characteristic of Southern oil mills generally. In Texas, with its earlier maturing crops, the seed movement culminated in September and October, and the exhaustion of seed supplies is brought right home to us even now; but in the States of Louisiana, Mississippi and Arkansas affairs are practically the same. In Tennessee reports are rather a little better; but even at Memphis the movement is only two-thirds of that of last season, and apparently at the expense of oil mills in other parts of Tennessee, Eastern Arkansas and Northern Mississippi. From other parts of Tennessee reports are quite as bad as from any section of the cotton belt.

"In the Atlantic States, as we have seen from these reports, the movement during the present month is likely to be larger than during November, but all indications as regards the total crush are really as unfavorable as anywhere in the States lying to the south and west; nor is it surprising that no substantial increase in the total crush can be looked for, if the real causes are borne in mind. They are:

"1. Primarily the short crop, which, with other factors remaining the same, alone accounts for about 40 per cent. less available seed than last year.

"2. The low prices for seed at the beginning of the season have diverted a much larger proportion than usual to

cattle feeding, in which seed finds a more favorable money return than the oil mills could afford to pay. This applies especially to Texas and Arkansas. Again, east of the Mississippi river, especially in the uplands of Alabama, Georgia, South Carolina and North Carolina, an unprecedentedly large proportion has been put on the land as an economical fertilizer; and we learn that the relatively high prices ruling for cotton has stimulated among farmers the use of cottonseed as a fertilizer to increase the productiveness of the cotton land for next season. It is also reported that an unusually large proportion of the seed is being retained by farmers for planting purposes for similar reasons. It is plain that seed once put on the land as a fertilizer or fed to cattle or stored away for planting is no longer available to the oil mills, and no increase of seed prices later on will resurrect the large proportion of seed done away with for the above purposes.

"In consequence of the large decrease of the seed movement and the low prices for mill products, milling operations in the South are at present extremely unprofitable and restricted. We have on one side the Southern oil mills turning out a small product of oil, cake and meal, with little or no stock of seed in reserve, and the prospect of extremely small supplies for the rest of the season, and naturally loath to accept orders for products at prices that do not pay them the cost. On the other hand the consuming community in the Northern States and Europe has thus far received reports of the actual seed situation in the South with indifference and a certain amount of incredulity. In consequence, markets for cottonseed products have ruled firm without activity.

"The diminished seed movement at the South plainly foreshadows a decrease of at least 550,000 to 600,000 barrels of cotton oil and a corresponding quantity of cake or meal from the respective quantities produced last season, and a word about future prices of products naturally suggests itself. Prices of cottonseed cake and meal are even now advancing at a steady pace, and this in the face of a large corn crop, large productions of linseed and other oil cakes and low grain prices, from sheer scarcity of the product. This proves that cottonseed meal and cake have made a place for themselves among the world's main feedstuffs for cattle, and the elimination of 50 per cent. or more of the usual supply cannot be left out of account in the economy of distribution without a marked effect on prices."

## The Market for Cottonseed Products.

New York, December 17.

An extended survey of the cotton-oil situation presents no novel feature. Perhaps the nearest approach toward breaking the prevailing monotony consists in the development of speculative tendencies. There are significant indications that this course is based on logical deductions and that investments in cotton oil at current figures will prove more than usually productive. The curtailed oil output and improved demand for cake and meal at remunerative prices, together with the fact that competing animal products have reached rock-bottom figures, strongly emphasize this theory. January and May lard, Chicago, is quoted at 5.20 cents and 5.42 cents respectively, while tallow has fallen so low in the scale of prices as to render profitable exportation practicable. Notwithstanding these temporary restricting influences on cotton oil distribution, due largely to the presence of the extraordinarily heavy supply of the foregoing products which now glut the market, a reaction will set in to a greater or less extent, improving values in the same ratio. That this view is entertained by many of the manufacturers is evidenced

by their present attitude. The market can scarcely be said to be as firm as a week ago. A fair volume of export business was transacted during the week under review, in some instances at prices shading current quotations, while receipts are over the average. English oil is quoted at 17s. 3d., a price which renders American oil competition for certain uses in England and the Continent impracticable. Contrary to the conditions which obtain here, seed in adequate quantities is available to the English oil miller. Egyptian seed, December and January delivery, is quoted at £4 15s. per ton, London. Crude in barrels is yet a scarce commodity at this market, while the quotable figure has receded. Crude in bulk is reaching here in moderate supplies from Texas and Southeastern points at 20 to 21½ cents, while Chicago and Kansas City report conservative purchases of Memphis oil at 22 to 22½ cents. Other sales reported during the week are 150 barrels crude at 25¾ to 26 cents, 790 barrels off yellow at 28 to 28½ cents, and 1750 barrels prime yellow at 29 cents. The prices stipulated in the speculative deals have not been divulged. Exports aggregate 5600 barrels, of which the greater part was destined for Trieste. The following are correct prices: Prime crude bulk at the mills, 20 to 22 cents; prime crude, 25 to 26 cents; prime summer yellow, 28½ to 29 cents; off quality yellow, 27½ to 28 cents; butter oil, 30 to 31 cents; white oil, 32 to 33 cents, and soap stock 1c. per pound.

Cake and Meal.—American cake and meal are yet scarce in England, although exports in goodly proportions are briskly proceeding, chiefly from New Orleans. London quotes £5 12s. 6d. and Liverpool £5 7s. 6d., respectively, for prime cake. To England and continental ports 50,000 bags meal and 2000 bags cake were shipped. Memphis quotes \$16 to \$16.25 per ton, and New Orleans, for export, \$18.75. Owing to the obligations which many of the mills are under, to temporarily suspend operations by reason of lack of seed, it is expected the correspondingly diminished cake supply will be further advanced in price. Receipts of meal at this market 1200 bags, and 4000 at Boston.

## Cottonseed-Oil Notes.

The Landas Cotton Oil Mill at New Braunfels, Texas, after having been shut down for several days to repair machinery, commenced operations on the 9th.

The Southern and the Merchants and Planters' Cottonseed-Oil Mills at Houston, Texas, have shut down for the season, and the Consumers' and the National Mills will close in a few days. The short cotton crop this season caused the oil mill season to be shortened from an ordinary run of seven months to three months.

Messrs. Hopkins, Dwight & Co., of New York, in their circular of the 14th inst. quote the market for cottonseed-oil products as quiet; prices easier in consequence of lower lard; business limited on account of light offerings and demand. Prime summer yellow oil was selling at 29 cents from dock; prime summer white was nominal at 32 to 33 cents; butter oil, 30 to 31 cents; off summer yellow, 27½ to 28 cents; prime crude, 25 to 26 cents; prime crude loose, 20 to 22 cents.

In Houston, Texas, the situation in cotton-oil products has not materially changed during the past week. A number of the Texas mills have already shut down, and it is stated that hardly one-fifth of them are now running. The following quotations were posted on the 14th inst. by the cottonseed-product department of the Houston Cotton Exchange and Board of Trade: Crude oil

for butter oil and strictly prime crude, 21 cents; prime crude, 20½ cents; prime butter oil in barrels, 28 to 29 cents; prime summer yellow oil, 22½ to 23 cents; prime cottonseed cake and meal, \$12.50 to \$14 f. o. b. mill at interior points, according to location; cottonseed hulls, \$4 to \$4.50.

In New Orleans the market for cottonseed products was weaker on the 14th inst. Prime crude oil in bulk, 21½ cents; yellow, 26 to 27 cents in barrels; prime cake was nominal and meal \$20 to \$21 per ton, market closing quiet. The following are receivers' prices: Cottonseed, \$10 per ton of 2000 pounds net at the mills, no commission of any kind to be added; cottonseed meal jobbing at depot, \$17.50 to \$18 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$19 to \$20 for current month; oilcake for export, \$19 to \$20 per long ton f. o. b.; crude cottonseed oil, at wholesale or for shipment for September or October delivery, strictly prime in barrels per gallon, 23½ to 24 cents; loose per gallon, 21 to 21½ cents; refined cottonseed oil, prime in barrels per gallon, at wholesale or for shipment, 26 to 26½ cents; cottonseed hulls, delivered, per 100 pounds, according to location of mill, 20 to 25 cents; foots, 1 to 1½ cents; linters, 1¼ to 4½ cents, according to style and staple; ashes, none.

## Southern Canal Projects.

The Texas Coast Canal Co., which is being promoted by Mr. A. Boschke and others, has issued a prospectus announcing the character of its plan. It is stated that arrangements have been made to begin work in the near future and to push it as rapidly as possible. As previously stated in the Manufacturers' Record, this canal will form practically an inland waterway from Galveston bay to the Rio Grande. It will be 150 feet wide and five feet deep, and will be one of the longest canal systems in the country. The formation of the coast line of Texas is very favorable to this scheme. A series of long, sandy islands skirt the coast for most of the distance between the boundary of Mexico and Galveston. The waterways, of which these islands form one side, are quite similar to the sounds and bays along the coast of the Carolinas, where, as is well known, an inland passage has been made by which light-draft vessels can go nearly all the way from New York to Florida without being on the open sea. There is no doubt that the Texas enterprise will be of great importance to the development of a section of the coast country, which at present is almost devoid of transportation facilities.

Mr. F. C. Brent, of the First National Bank, Pensacola, Fla., advises the Manufacturers' Record that he and others have formed the Pensacola Inland Navigation Co. at Pensacola, Fla., which intends to build a canal one mile long connecting Pensacola bay with Mobile bay and forming another inland waterway along the Gulf of Mexico. The capital stock is \$50,000.

## Boston Capital in Carolina.

A dispatch from Southern Pines, N. C., states that Mr. James W. Tufts, the soda-fountain manufacturer, of Boston, Mass., has progressed so rapidly in the building of his new town, Pinchurst, that already forty-five cottages have been completed, while a number of others are in course of construction, as well as an electric railroad from Southern Pines to Pinchurst. Mr. Tufts made a thorough investigation of this locality and became convinced of its healthfulness and the fertility of the soil for fruit and vegetable growing. His enterprise will doubtless be the means of inducing a large number of additional colonists to locate in and near Southern Pines.



**MECHANICAL.****Special Heavy 12-Inch Standard Molder.**

A machine destined to take a leading position is the special heavy 12-inch standard molder, made by the J. A. Fay &

be swung clear out of the way to give free access to the lower cutter head.

The feed, of which there is two changes, consists of four rolls, two in the bed and two above, all driven by powerful gearing, the expansion for driving the lower rolls being very perfect. The upper feed spindles are hung on links in such a man-

Made with the bed to work but ten inches wide, the machine is known as the special heavy 10-inch No. "B" standard molder.

**A Swing Saw.**

The swing saw herewith illustrated is a machine very convenient for cross-cut-

one single casting, made with a continuous surface having a "cored section" or centre, and is adjusted to the wall by hangers designed to hold it firm and in perfect alignment.

It will cut perfectly square on the heaviest work.

The hangers are fitted with foot plates which are bolted to the timbers and are adjustable vertically four and a half inches, thus allowing the whole frame to be raised and lowered without cutting or soliciting belts. No other swing saw has this feature.

The countershaft hangs on adjustable bearings that do not rest on the hanger or interfere with the perfect and easy swing of the frame.

At the lower end is located the saw arbor, which is made from the best tool steel, running in bearings lined with the best genuine Babbitt metal, the whole swinging freely across a table or bench which may be erected under it for laying the work upon while being sawed.

By means of the weight and compound lever the saw is held back when not in use, an arrangement much superior to the heavy pulling weight generally used.

All the pulleys are of large size, turned true and balanced, and the loose pulleys are fitted with our patent self-oiling sleeve. The oil cups are neatly covered, the saw is guarded, and the whole machine is constructed in a first-class manner of the best materials. A neat belt shifter, shown in the cut, is furnished.

The length of frame, from centre of saw arbor to centre of countershaft, is six feet three and a half inches, or, if so ordered, will be made to swing from below the table.

The No. 1 will carry a 30-inch saw, cutting through eight-inch timber; tight and loose pulleys, twelve by six inches, should run 500 revolutions per minute; hole in saw one and one-quarter inches. A 24-inch saw is ordinarily furnished with this machine.

The No. 2 will carry a 20-inch saw, cutting through six-inch timber; tight and loose pulleys, ten by five inches, should run 700 revolutions per minute; hole in saw one and one-quarter inches. A 16-inch saw is ordinarily furnished with this machine. For any further particulars desired address the manufacturers, the J. S. Graham Machine Co., of Rochester, N. Y.

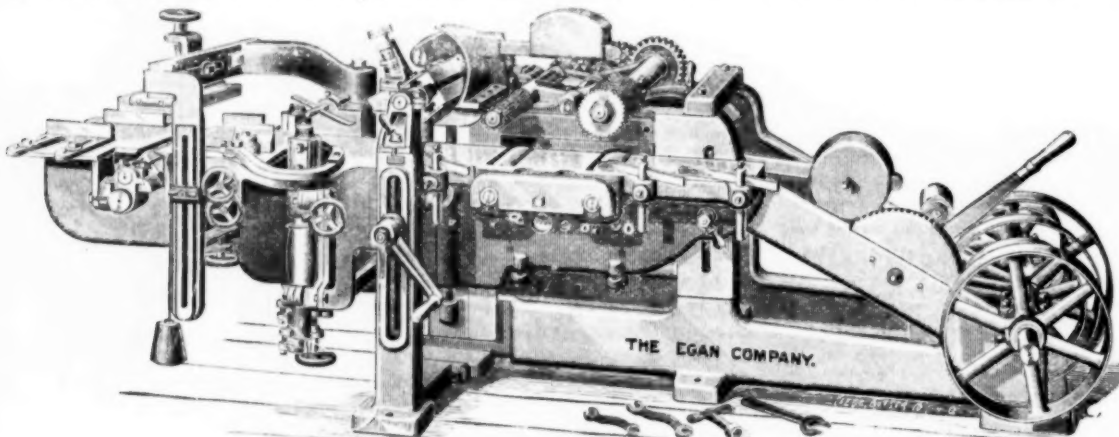
**Latest Improved Automatic Knife Grinder.**

This latest improved automatic knife grinder has recently been invented and perfected, and the makers are now building it. It is a machine for grinding planer knives, jointing knives, stove-dressing knives and other knives having straight, curved or irregular formed edges, this being accomplished by the use of forms or patterns which can be easily and quickly made and applied to the machine and which will cause the knives to be truly ground to the desired shape and to be exactly alike at all times. The necessary forms are furnished on receipt of paper patterns of the cutters to be ground, with the angle of the bevel marked thereon.

The machine is entirely automatic, having both lengthwise and crosswise feed, and is provided with a feed stop, by means of which the machine will stop grinding at the instant the knife has been brought to an edge, thereby avoiding loss from excessive grinding.

The knives are ground from the edge downward, thus keeping the cutting edge cool, and consequently will not draw the temper, without the use of water; but if desired we furnish the machine to grind with water.

The loose pulleys are self-oiling and all bearings are absolutely dust-proof, and the entire machine is well built of good



SPECIAL HEAVY 12 INCH STANDARD MOLDER.

Egan Co., of 228 to 248 West Front street, Cincinnati, Ohio, and illustrated herewith.

This machine, while possessing the advantages of an outside molder in setting up for heavy or light work, is equal in capacity to any inside molder made, and will be found especially adapted to work all kinds of heavy building material, car work, mantel work, etc. It possesses several advantages not found on any other molder, outside or inside, made, and is one which can be run with advantage and profit to the owner.

The frame, very heavy, well braced and with ample floor space, is made extra long, so that the belts may have great pulling capacity and every advantage and convenience for easy running.

The spindles, made of the very best cast steel, are large in diameter and run in extra long self-oiling boxes, lined with genuine Babbitt metal, and are so arranged that the belts pull against the boxes and not against the caps.

The patent outside bearing to the upper spindle is of improved construction, goes to the floor, and is solidly bolted to the frame at its base. No bolts or outside boxes have to be taken off to raise or lower the bed.

The side heads and the lower head, with their spindles, raise and lower with the table in a superior manner, requiring less exertion on the part of the operator than any other makes of molders on the market. The side spindles, both inside and outside, are adjustable vertically and horizontally while in operation by handwheels on the front side below the bed, and the upper head is adjustable laterally. These are improvements on molders which will be greatly appreciated by operators.

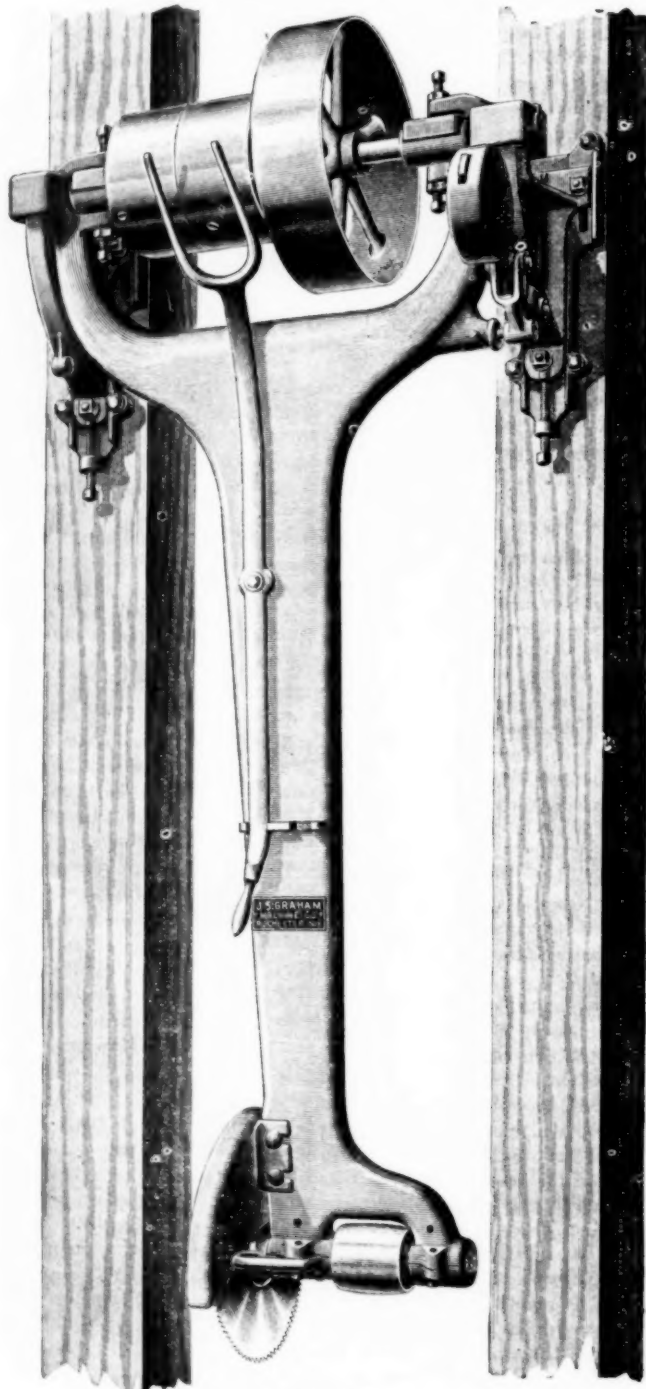
There are chip breakers to every head, which is a marked advantage, as the way these improvements are rigged there can be no tearing out of stock on any of the heads. The chip breaker to the outside head is weighted in a superior manner, so as to give equal tension when taking either a heavy or light cut.

The patent bonnet is adjustable to and from the head independently of the adjustable shoe, which can be brought clear under the knife, and swivels on a stud so that it can be swung clear out of the way to give free access to the knives.

The pressure foot for the lower head is a cored arm projecting from the back of the frame and supported at the front of the bed, making it very stiff and reliable and holding the work down solidly to the bed, thereby enabling the lower cylinder to do perfect work. The arm supporting the pressure foot is hinged so that it can

ner that the feed rolls raise up parallel with the bed, thus giving the feed rolls a full bearing on the stock the entire width of the piece. By our improved system of weighting, the upper rolls can be instantly raised so as to allow the stock to be slipped

ring lumber in box, sash and door, cabinet, wagon and carriage shops and planing mills, and has been designed to meet the objections hitherto found against swing cut-off saws, which as usually made have been very light and imperfect machines. The makers say that the frame is cast in

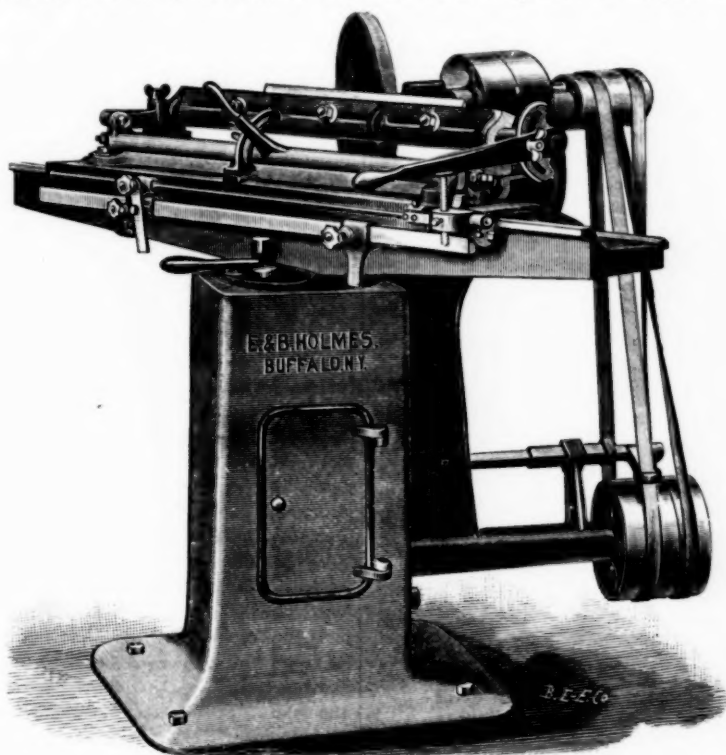


SWING SAW.



material, and is fully warranted in every particular.

This machine will prove a valuable acquisition to stave and barrel factories, planing mills and all other places where knives or cutters are used, and only a single trial is needed to convince anyone of the practical utility of a machine of this kind. The E. & B. Holmes Ma-



LATEST IMPROVED AUTOMATIC KNIFE GRINDER.

chinery Co., of Buffalo, N. Y., is the maker of this machine, in different sizes, to grind knives up to thirty-two inches, thirty-eight inches, forty-four inches and fifty-four inches in length. It received highest award at the World's Fair on this machine, together with a large and complete line of woodworking and barrel machinery.

#### Gold Mines of the South.

The Washington correspondent of the News and Courier says:

"I expect to see some remarkable development in the precious metal mines of the South," remarked Mr. Robert E. Preston, director of the mint, while discussing the subject of the gold production of the United States. Since the opening of the Atlanta Exposition the most enthusiastic reports have been received at the department from various sources, relating to the magnificent exhibits of mineral products from the States of North and South Carolina, Georgia, Alabama and Tennessee. Mr. Preston says he proposes to make a thorough investigation of the territory known as the South Appalachian range during the coming year, for he is convinced that there is enough gold to be found there to warrant a more energetic working of those mines.

"Mr. Preston says he believes there is a great future for those two States in the production of gold, if the necessary capital can be procured.

"In South Carolina the gold mines are located in Chesterfield, Lancaster, Spartanburg, Union and York counties. The reports show that during the last year the Blackburg Caloric Reduction Co. accomplished some work, and the Brewer mine, in Chesterfield county, was idle nearly ten months. It is believed that internal disagreements in the company were the cause of the suspension, for there has been no question raised as to the resources of the property. The suspension of that mine fully accounts for the diminished yield of the State, and its resumption will restore South Carolina to its former leading position among the

gold-producing States of the South.

"The Haile mine, in Lancaster county, still maintains its energetic and productive work, and each year witnesses some marked improvement in the methods which inures not only to its own advantage, but to the profit of the whole section, and has an important bearing on the solution of the problem of the gold indus-

try. On the whole, the mining operations in South Carolina are in a more satisfactory condition than most of its neighbors, and are likely to be extended in a conservative manner.

"In Georgia the output of gold for the past year was within a few hundred dollars the same as in the previous year. The conditions of work are favorable for steady operations and some increase of yield. The bulk of the production comes from Cherokee, Lumpkin, White and McDuffie counties. More attention has been given to the question of sulphurates and refractory ores in general, and apparently some progress has been made toward a solution of that troublesome problem. The placer work around Auraria and New Bridge was extended, and bids fair to increase.

"In the annual report of Mr. Preston, which has not yet been promulgated, he will treat of this subject further. He is convinced, however, that there is a promising future for the Southern mines if vigorously and systematically worked.

"Mr. Maurice J. Power, naval officer at the port of New York, stopped over here a few days ago on his way from the Atlanta Exposition. He says that to him the most remarkable exhibits there were from the two Carolinas, Georgia and Alabama. He was particularly impressed by the products of the mines and the lumber regions. The iron ores and the products from the same, he says, astonished many Northern and Western men he met there. They had no idea of the wonderful resources of the Southern States, and if the exposition does not accomplish any other purposes, it will open the eyes of capitalists seeking investments; that the resources of the South offer even greater attractions than the West. The manufactures from lumber and the finer grades of cotton goods made right there equal, if they do not excel, the productions of the most modern establishments in the North. Altogether, Mr. Power says, the exposition is offering opportunities for Northern and Western people to see and appreciate the wonderful resources of the South."

## PHOSPHATES.

### Phosphate Markets.

Office Manufacturers' Record.

Baltimore, Md., December 19.

The volume of business in the local phosphate market has been light during the past week, with little or no demand. Manufacturers are not purchasing largely, and operations will not be larger until after the new year. At points of production the situation remains unchanged. In South Carolina the market is steady, with the work of development in mining sections going forward with considerable vigor. At Charleston the market closes firm at \$3 for crude phosphate rock, \$3.25 for hot-air-dried and \$5 for ground rock, all f. o. b. Florida miners are extending their operations somewhat, and the market is reported nominally steady at 8 to 8½ cents a unit for land pebble delivered at Eastern ports. Land rock is steady at 6½¢, and pebble at 5½¢, for foreign ports. The local receipts of phosphate rock during the week were as follows: Schooner Susie Plummer from Tampa, Fla., with 1362 tons, and schooner Andrew Adams from the same port with 1091 tons. The receipts for the month of November amounted to 9193 tons, of which 4029 tons were from South Carolina and 5164 tons from Florida, and for the corresponding month last year the total receipts were 3058 tons. The following charters are reported in the local market during the past week: Schooners E. L. Cottingham, T. Vanderherchen and The Josephine, Ashley river to Baltimore; schooners Agnes Manning and R. M. Hayward, Ashepoo, S. C., to Baltimore; William Neely, Coosaw river to Baltimore; C. A. Lane and J. W. Elwell, Tampa to Baltimore; E. G. Hight, Jacksonville to Baltimore, and Susie Plummer and Augustus Welt, Tampa for orders. The New York charters are as follows: A schooner, 852 tons, to Port Royal with bagging, 5 cents per half roll, and back to Baltimore with phosphate rock, \$1.75, free wharfage; a schooner, 1161 tons, from Port Tampa to Baltimore or Cartaret with phosphate rock, \$2.25, 250 tons per day loading and discharging; a British steamer, 1776 tons, from Port Tampa to Rotterdam with phosphate, 18s., chartered abroad, and a schooner, 875 tons, from Port Tampa to New York with phosphate rock at \$2.

### Fertilizer Ingredients.

The tone of the market is quiet, with a light demand for the leading ammoniates, and both spot lots and futures are neglected. Stocks in the West are not excessive, and for blood and tankage prices are unchanged. There is very little inquiry from Southern markets. Nitrate of soda is easier under liberal offerings in New York, and for near futures a considerable quantity was taken in that city at \$1.70. Forward shipments were quoted \$1.72½ to \$1.75.

The following table represents the prices current at this date:

Sulphate of ammonia, gas....	\$2 50¢	—
Sulphate of ammonia, bone....	2 50¢	—
Nitrate of soda.....	1 80¢	1 85
Hoof meal.....	1 80¢	—
Blood.....	1 85¢	1 90
Azotine (beef).....	1 80¢	—
Azotine (pork).....	1 85¢	—
Tankage (concentrated).....	1 80¢	—
Tankage (9 and 20).....	1 50	and 10
Tankage (7 and 30).....	17 00¢	17 50
Fish (dry).....	20 50¢	—
Fish (acid).....	15 00¢	—

### Phosphate and Fertilizer Notes.

It is stated that a new phosphate plant is now being established near Osceola, Fla., by W. E. Simmons. The plant will employ twenty men for the present, and will be in operation in a few days.

The British steamship Bendo arrived at Tampa, Fla., on the 12th from New Orleans for a cargo of phosphate, and the barkentine James W. Elwell from

Cienfuegos, also to load phosphate rock.

The Peace River Phosphate Mining Co., of Hull, Fla., is pushing the work of development on its mining property, which comprises an acreage of about 26,000. The company is now operating seven dredges on Peace river, and expects to get out another by January 1.

The British steamship Marie left Shields, England, on the 24th ult. bound for Fernandina for a cargo of phosphate rock; the schooner Jerome B. Look has been chartered to carry a cargo of phosphate from Fernandina to Barbadoes, and the British steamship Benshaw, 1027 tons, is expected to arrive at Fernandina from Madeira to load phosphate rock.

Secretary J. R. Smith, of the State board of fertilizer control, in his annual report of the South Carolina experiment station gives the following figures, showing the work of the department: Privilege tax collected during the year, \$30,077.93, against \$43,490.06 in 1894; amount of fertilizers sold in the State, \$120,311, against \$173,906 last year; number of samples collected by inspectors, 340, against 500 in 1894.

A company for the manufacture of guano and commercial fertilizers was organized in Rome, Ga., last week. The projectors of the enterprise are Messrs. E. T. McGhee, J. W. McGhee, J. W. Rounsaville, J. A. Rounsaville and others. The capital stock of the company is placed at \$10,000, in shares of \$100 each, 50 per cent. having been paid in. The charter has been applied for, and when granted operations will begin at once.

A charter was granted last week in Richmond, Va., to the S. G. Webb Chemical Co. of that city, organized for the manufacture of fertilizers, fertilizing materials, drugs and chemicals. The capital stock of the company is to be not less than \$20,000 nor more than \$50,000. The officers of the company are S. G. Webb, president and general manager; William M. Conling, vice-president; J. I. Boswell, secretary and treasurer, and Dr. H. Froehling, chemist.

The phosphate shipments from the port of Charleston, S. C., for the week ending the 13th inst. were as follows: Schooners Adele Thackera, 800 tons for New York; The Josephine for Baltimore with 1000 tons; Isaac T. Campbell for Boothbay, 810 tons; Annie C. Grace, 720 tons for Philadelphia; Fannie Brown, 785 tons, and W. H. Allison, 677 tons, both for Richmond, Va.; and Anna L. Mulford, 770 tons for Mantua Creek, N. J. The total shipments since September 1 amount to 35,893 tons to domestic ports, against 27,443 tons for the corresponding period last year.

The annual meeting of the stockholders of the Navassa Guano Co. was held in Wilmington, N. C., on the 12th inst. Mr. Hugh MacRae was chairman and Col. W. L. De Rosset, secretary. The following were elected directors: D. G. Worth, C. E. Borden, D. MacRae, G. W. Kidder, of Wilmington; F. Whittle, of Petersburg, Va.; S. D. Crenshaw, of Richmond, Va.; S. T. Morgan, of Durham, N. C.; F. B. Dancy, of Norfolk, Va., and L. A. Carr, of Durham, N. C. At a meeting of the board of directors the following officers were elected: President, D. G. Worth, of Wilmington, N. C.; vice-president, S. T. Morgan, of Durham, N. C.; general manager and superintendent, C. E. Borden, of Wilmington, N. C.; secretary and treasurer, W. L. De Rosset, of Wilmington, N. C.

It would pay every town and every property-owner and agent in the South to advertise in the *Southern States* magazine. It is published by the Manufacturers' Record Publishing Co., Baltimore.



## LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

## Lumber Directory.

Readers of the Manufacturers' Record who may be in the market for lumber of any description are recommended to the directory of Southern lumber manufacturers and dealers which appears among the advertising pages.

## LUMBER MARKET REVIEWS.

## Baltimore.

Office Manufacturers' Record.

Baltimore, Md., December 19.

There is no movement of any importance in the local lumber market, and at this period of the season there is very little business expected. Yardmen are about taking stock and winding up the affairs of the year, and from this source there is no demand at the moment. Receipts of all kinds of material are light, and in yellow pine stocks are low and the assortment rather broken. A few lots of air-dried yellow pine were sold during the week to box factories, and with this exception there is very little doing. Kiln-dried North Carolina yellow pine is selling more freely, and out-of-town buyers have taken several large lots. White pine is steady, with a moderate demand and ample supply. In cypress there is very little moving, and prices are about steady. The hardwood market shows no material change; some small lots are selling to local buyers, and from out of town the demand is not urgent. The export movement continues about the same as previously reported. Small shipments on orders are going forward, but at present the market in Great Britain shows very little improvement, and there are no strong inducements to ship with that market in its present shape. Local planing mills and box factories report business quiet and orders not numerous.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE		
5-4x10 No. 2, kiln dried.....	\$16 00@	18 00
5-4x12 No. 2, kiln dried.....	17 50@	18 50
4-4x10 No. 1, kiln dried.....	16 50@	17 50
4-4x12 No. 1, kiln dried.....	17 00@	17 50
4-4 nar. edge, No. 1, kiln dried.....	13 00@	14 00
4-4 wide edge, No. 1, kiln dried.....	18 00@	19 00
6-4x10 & 12, No. 1, kiln dried.....	23 00@	24 00
4-4 No. 1 edge floor, air dried.....	13 00@	14 00
4-4 No. 2 edge floor, air dried.....	10 50@	11 50
4-4 No. 1 12-in. stock, air dried.....	14 50@	15 50
4-4 No. 2 12-in. stock.....	12 00@	13 00
4-4 edge box or rough wide.....	7 50@	8 50
4-4 edge box do. (ord. widths).....	7 00@	8 00
4-4 edge box do. (narrow).....	6 50@	7 50
4-4 12-in. or rough wide.....	9 50@	10 00
3/4 narrow edge.....	6 00@	7 00
3/4 wide.....	7 00@	8 00
3/4x10-inch.....	8 00@	9 00
Small joists, 2 1/2-12, 14 and 16 long.....	8 50@	9 50
Large joists, 3-16 long & up.....	9 50@	10 50
Scantling, 2x3-16 and up.....	8 50@	9 50

## WHITE PINE.

1st and 2d clear, 4-4, 5-4, 6-4 & 8-4.....	48 50@	50 50
3d clear, 4-4, 5-4, 6-4 and 8-4.....	43 00@	44 00
Good edge culls.....	14 00@	15 00
Good stock.....	16 50@	17 50

## CYPRESS.

4-4x6, No. 1.....	20 00@	21 00
4-4x6, No. 2.....	14 50@	15 50
4-4x6, 16 feet, fencing.....	12 00@	13 00
4-4x6, rough.....	9 00@	9 50
4-4 rough edge.....	9 00@	9 50
4-4 edge, No. 1.....	18 50@	19 50
4-4 edge, No. 2.....	12 00@	13 00
Gulf, 4-4, Nos. 1 and 2.....	28 50@	30 50
Gulf, 6-4, Nos. 1 and 2.....	31 50@	32 50

## HARDWOODS—WALNUT.

5-8, Nos. 1 and 2.....	65 00@	75 00
4-4, Nos. 1 and 2.....	80 00@	90 00
5-4, 6-4 and 8-4.....	85 00@	95 00
Newell stuff, clear of heart.....	85 00@	100 00
Culls.....	20 00@	30 00

## OAK.

Cabinet, white and red, Southern, plain-sawed and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	29 00@	33 00
Quartered white, Western, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....	53 00@	55 00
Culls.....	10 00@	15 00

## POPLAR.

Nos. 1 and 2, 5-8.....	24 50@	25 50
Nos. 1 and 2, 4-4.....	28 00@	30 00
Nos. 1 and 2, 6 and 8-4.....	32 50@	33 50
Culls.....	13 00@	16 00

## SHINGLES.

Cypr., No. 1 h'ts, sawed, 6x20.....	7 25@	7 75
No. 1 saps, sawed, 6x20.....	5 50@	6 50
No. 1 hearts, shaved, 6x20.....	6 50@	7 50
No. 1 saps, shaved, 6x20.....	5 25@	5 50

## LATHS.

White pine.....	2 70@	2 75
Spruce.....	2 15@	2 25
Cypress.....	2 15@	2 25

## Charleston.

[From our own Correspondent.]

Charleston, S. C., December 16.

The general lumber market cannot be called active at the moment, and although there is considerable lumber being shipped, the demand during the past week has not been so pronounced. Mills are generally working up to their full capacity and have orders sufficient to keep them running for some weeks to come. The better grades of manufactured lumber are in better demand and prices firm. The market closes with quotations as follows: Merchantable lumber, \$14 to \$16 for city-sawed, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8.50 to \$10.50. There is a fair inquiry for shingles, with stocks generally ample for the demand at \$5 to \$7 per thousand. Among the clearances of lumber cargoes during the past week the following vessels are reported: Schooner Nellie Coleman for Port Antonio with 85,000 feet of lumber; the schooners Clara S. Bergen with 381,000 feet, Maggie M. Keogh with 540,000 feet and James Baird with 300,000 feet, all for New York. The schooner Nelson E. Newbury cleared for New York on Saturday with 560,000 feet of lumber, and the schooner Harold C. Beecher for New Haven with 285,000 feet. The total clearances of lumber and timber from this port since September 1 amount to 20,976,374 feet to domestic ports and 668,000 feet foreign, making a total of 21,644,374 feet, against 18,648,800 for the corresponding period last year. Yellow-pine lumber freights are firm, with a moderate offering of lumpy-sized vessels. Among the charters reported in New York last week are the following: A schooner, 336 tons, from Charleston to New York at \$4.50; a schooner, 297 tons, from Georgetown, S. C., to Boston at \$5.50, and a schooner, 521 tons, from Charleston to Bridgeport at \$5.

## Savannah.

[From our own Correspondent.]

Savannah, December 16.

The demand for all good grades of manufactured lumber continues very steady at this port, and the general market has ruled fairly active during the past week. At all milling sections of Southern Georgia the reports received are generally favorable and the lumber industry is now on a better basis than for some time past. The list of values everywhere are firmer and prices have advanced very perceptibly during the last six months. At Cordele there is a good demand for dimension and prices firm, some mills getting more than the list price. The stocks are small, and it is said that all the mills at that city have sold ahead from sixty to ninety days. At Brunswick the foreign and domestic demand is better than at any time during the current year, and the present condition of the market is highly satisfactory to manufacturers and exporters. The market here closes firm at the following quotations: Ordinary sizes, \$11 to \$12; difficult sizes, \$13 to \$18; flooring boards, \$15 to \$22; shipstuffs, \$16.50 to \$20, and sawn ties, \$10. The shipments of lumber during the past week have been considerable in volume, among which the following cargoes are reported: Barkentine Levi S. Andrews with 478,000 feet of pitch-pine lumber for New York, and by steamers for the same port 226,000 feet and 175,000 shingles. The British barkentine Earncliffe cleared for Pernambuco with 12,398 feet of pitch-pine lumber among her cargo. The steamship City of Macon cleared for Philadelphia with 176,000 feet of lumber and other

merchandise. Boston steamers took 30,827 feet of pitch-pine lumber and other cargo. Lumber freights are not materially changed, and rates are nominally steady, with fair offerings of handy-sized tonnage. The rates from this and nearby Georgia ports are still quoted at \$4.25 to \$5.50 for a range including Baltimore and Portland, Maine. To the West Indies and Windward rates are nominal; to Rosario, \$12 to \$13; Buenos Ayres and Montevideo, \$10 to \$11, and to Rio Janeiro, \$14. Steamer rates to New York and Philadelphia are quoted at \$7, to Boston \$8 and Baltimore \$5. The charters reported in New York during the week were a schooner, 507 tons, from St. Simons to New York at \$4.50; a schooner, 485 tons, from Savannah to New York at about \$4.50; a schooner, 543 tons, from Savannah to Baltimore on private terms, and a schooner, 446 tons, from Darien to New York at \$4.50.

## Jacksonville.

[From our own Correspondent.]

Jacksonville, Fla., December 16.

The present month so far has kept up the record for shipments of lumber, and the volume of business in all departments of this important industry is still expanding at this port. During the year trade has been much more satisfactory, and prices at present show quite an advance over those current at the corresponding date last year. There is great activity just now among the saw mills in this section and many find it difficult to fill orders promptly. The clearances from this port during the week have been quite liberal, and vessels now loading and those due to arrive will make the total business for the month larger than that of November. Among the vessels leaving port the past week were the following: Schooner Jennie E. Righter for Perth Amboy, N. J., with 12,000 railroad ties; schooner H. S. Lanfair for Baltimore with 104,000 feet of yellow-pine lumber and 46,000 shingles; schooner Roger Drury for Portland, Maine, with 300,000 feet of yellow-pine lumber. The Clyde Line steamers Comanche took out 525,000 feet of yellow pine, 5000 bundles of shingles and other cargo; the Cherokee sailed with 300,000 feet of lumber and 6000 bundles of orange-box shooks, with other cargo, and the Seminole with 275,000 feet of lumber and other merchandise. Among the New York charters last week were a schooner, 306 tons, from Jacksonville to Portland, Maine, at \$5.25, and a schooner, 303 tons, from Jacksonville to Martinique, two ports, \$6.75, if a third is used 25 cents extra.

## Pensacola.

[From our own Correspondent.]

Pensacola, Fla., December 16.

A fairly active market has ruled here during the past two weeks and the movement in both lumber and timber has been moderate in volume. The demand for timber is steady, with stocks light and prices firm. Advances from Europe represent a slight improvement in the timber market, with stocks somewhat reduced. In lumber there is a fair demand for yellow pine, and prices continue steady, with indications that an advance will occur early in the new year. Manufacturers of dressed lumber met recently at Montgomery and formed the Alabama Lumber Association, which will fix a scale of prices, and it is understood that in this move prices will be fully maintained. Mr. R. A. Heyer, of this city, whose knowledge of the trade in lumber and timber of the port is considered the standard, has prepared a table of exports for the year ending October 31, 1895. The following is among the figures given: Hewn timber to Great Britain 91,642 cubic feet, Continent of Europe 241,361 cubic feet, and Africa 155 cubic feet—total 333,158.

Sawn timber—Great Britain 83,936,000 superficial feet, Continent 42,273,000 feet, Africa 1,975,000 feet, South America and other foreign ports 1,013,000 feet—total 129,197,000. Lumber—Great Britain 14,293,000 feet, Continent 61,001,000 feet, Africa 3,620,000 feet, South America and other foreign ports 50,681,000 feet, coastwise 22,642,000—total 152,237,000 feet. The exports of timber for the year were 62,753 feet more than for 1894 and 86,757 feet less than for 1893. The sawn timber exported this year was 34,811,000 feet less than in 1894 and 3,075,000 feet more than in 1893. The shipments of lumber exceeded the amount shipped in 1894 by 12,500,000 feet and in 1893 by 14,150,000 feet. The exports of oak were 28,270 cubic feet, all to the Continent of Europe. During the week under review the shipments were as follows: Bark Frigga for Buenos Ayres with 3038 cubic feet of sawn timber and 500,000 feet of lumber; schooner Saddle Willcutt for Lynn, Mass., with 250,000 feet of lumber; bark M. Figle for Genoa with 14,772 cubic feet of sawn timber and 257,000 feet of lumber; bark Michele for Castellamare with 22,037 cubic feet of sawn timber; bark Sumaride for Buenos Ayres with 632,000 feet of lumber; barkentine Wandering Jew for Philadelphia with 435,000 feet of lumber; bark Antonio for Buenos Ayres with 686,000 feet of lumber, and bark Leif for Amsterdam with 4159 cubic feet of sawn timber and 528,000 feet of lumber. Among the charters reported were the following: A schooner, 604 tons, from Pensacola to Rio de Janeiro at \$13, and a Norwegian bark, 819 tons, from Pensacola to Rio de Janeiro at \$13.

## Mobile.

[From our own Correspondent.]

Mobile, Ala., December 16.

In nearly every avenue of the lumber and timber industry of this port there has been more activity during the past week than usual, and it now looks as if considerable business will materialize at the opening of the new year. There is some timber being exported, but stocks are very light and shippers generally cautious in their movements. Hewn timber is still quoted at 10 to 11 cents on basis of 100 cubic feet, average B1 good. Hewn oak is dull at 18 to 20 cents per cubic foot. Sawn timber is quoted at 10 1/2 cents per cubic foot, 40-foot basis, and contracts are made at 10 1/2 to 11 cents basis. Cypress is in fair demand at 5 to 9 cents per cubic foot, according to average. Cedar is quoted at 20 to 30 cents per cubic foot. The lumber trade is showing a decided improvement, and the demand from South and Central America is quite brisk. There is also a good inquiry from Northern and Eastern ports, and also considerable business from European sources. The gulf coast lumbermen met here last week and adopted a plan of organization to be known as the Gulf Coast Lumber Co., which is to be incorporated with a capital of \$50,000, of which 10 per cent. is to be paid in. The mills signing the agreement are to sell their entire product to the company, and are to act as sales agents of the company, which is to be managed by a president, secretary and board of directors. All the mills sawing pitch-pine lumber for foreign or domestic export are eligible to membership. The following shipments of lumber and timber are reported during the week: Bark Brigneti for Buenos Ayres with 635,217 feet of lumber, and bark Guisepino for Rio de Janeiro with 535,625 feet; the bark Susana cleared for Rosario with 354,039 feet; the bark Thambarskeiver cleared for Port Natal, Africa, with 57,526 cubic feet of sawn timber and 14,640 feet of lumber; barkentine Nimrod for Brest, France, with 26,397 cubic



feet of sawn timber and 4346 feet of lumber, and the steamer Kennett for Progresso, Mexico, with 2876 cubic feet of hewn timber and 63,555 feet of lumber; the bark McGregor cleared for Philadelphia with 468,817 feet of lumber. Other shipments aggregated 860,000 feet of lumber. The total shipments of lumber since September 1 amount to 15,024,855 feet, against 15,023,787 for the corresponding period last year. It is stated that the property of the Seaboard Manufacturing Co. in this city and Fairford was turned over on Friday last to Mr. Edward C. Wright, representing the bondholders. The mills at Fairford will resume operations today, and the wages due the employees will be paid. At all milling sections in this district of the State and points in Mississippi there is a better feeling among millmen, and the outlook for future business is more encouraging.

#### Beaumont.

[From our own Correspondent.]

Beaumont, Texas, December 16.

With the closing of the year the lumber situation shows no material change from that reported a week ago. The demand is fairly active from dealers, and a good trade is expected on the opening of the new year. From nearly every section of the State stocks in dealers' hands are reported light, and the probability is that there will be an urgent demand in the near future. There is a good demand for dressed lumber, and orders from dealers are coming in pretty lively. In railroad timbers there is a light volume of business, and corporations are not yet in the market for any large amount of timber. The Journal in reviewing the lumber market says: "Contrary to the expectations of manufacturers, the demand from dealers has been quite good during the week, and information from the various portions of the State is of a character to begot the belief that there will, if weather continues favorable, be a fair demand up to Christmas." Stocks are generally ample for the demand, and shipments are about equal to the production. There have been several timber bills placed during the past week, and sawing orders in hand will last about sixty days. There is a good export demand at the moment, and there are now three vessels loading at Sabine Pass, the Mary Sanford, Viva and Sygn. The Reliance Lumber Co. is loading the Sanford and Viva, and the Export Lumber Co. furnished the cargo for the Sygn. The Anita Berwind cleared last week for Tampico, Mexico, with 505,000 feet of lumber, and the schooner Julia A. Ward is due to arrive to load with lumber for Mexico. The lumber situation at Orange is very satisfactory to manufacturers and others in the trade, and the movement during the past week shows a fair volume of business. The Galveston News says: "Mills at Orange have been going four days this week, but shipments have been liberal for six days. There is no question about the cut and the shipments being sharply below the capacity of the mills, but they intend to enter the new year with much smaller stocks than they found on their hands at the opening of 1895." The shingle mills are all busy, and the demand is active, stock being picked up before it is dry. Stocks are not large, and prices are generally well maintained.

#### Lumber Notes.

The Robinson mill, of the Southern States Land & Timber Co., at Millview, Fla., having been refitted with new machinery, was started up last week. Both the company's mills at Muscogee are now running on full time.

The large planing mill of L. O. Parish

at Rocky Mount, N. C., which is a \$20,000 plant, has been purchased by Messrs. Harris, McHenry and Baker, of Elmira, N. Y. They will commence operations on January 1 next on a large scale.

A saw mill owned by G. W. Hughes and operated by Kilpatrick & Brown at Middleton, Tenn., was burned on the 9th inst. The mill will be rebuilt at once. Kilpatrick & Brown will soon have in operation a saw mill located at Muddy, three miles from Middleton.

The Southern Cypress Lumber Association held its monthly meeting in New Orleans on the 12th inst. Mr. G. M. Bowie presided. Routine matters were discussed. The members reported good stocks at their mills, with an increased demand, especially for cypress shingles.

Messrs. Panlooski & Cox, of Adairsville, Ga., are about to erect a planing mill and sash, door and blind factory in that town. A site has been selected, and it is thought the plant will be completed within two months. The firm is now receiving bids for a full supply of machinery.

Mr. W. E. Dickey, from Virginia, has secured the contract to furnish J. S. Bailey & Co.'s saw mills at Dublin, Ga., with logs by a new process. The logs are pulled in and loaded on the cars with a cable and stationary engine, which will accomplish the work of ten teams and forty mules.

The second steamship now loading at Pensacola to be dispatched by the new company recently established by the Louisville & Nashville Railroad between Pensacola and Liverpool will take on board as part cargo twenty carloads of walnut from Kentucky. A large quantity of poplar lumber, also from Kentucky, will be shipped.

Messrs. Charles Baker and J. A. Hartley have nearly completed a large plant at Emporia, Va., which the company will operate as the Bellfield Enterprise Co. They will go extensively into the manufacture of veneering, and will also manufacture other articles in wood. They expect to commence operations about January 1, 1896. Messrs. Pert, Neill and McCormack have purchased the Bellfield Manufacturing Co.'s planing mills, a very valuable plant.

The millmen of Arkansas, Louisiana, Missouri and Texas held a meeting at Texarkana, Ark., on the 10th inst. President A. J. Neimeyer, of St. Louis, presided, with Theodore Plumer, of the same city, as secretary. The contingent met on the east side of the city in the State of Arkansas, as they are working under a charter procured from that State, and the Arkansas, Missouri and Louisiana men met at a different place, as they are working under a charter from Illinois. The two contingents came together in the afternoon, and after considerable debate resolved to shut down their mills four days in the week in order to reduce the stock. They also resolved to maintain present prices. It is stated that Mississippi millmen are in full accord with the movement, and will act in concert with the companies.

There was a large and representative meeting of the gulf coast lumbermen held in Mobile, Ala., on the 10th inst., composed of representatives of mills from Apalachicola, Fla., to Pearlington, Miss. The meeting was called to order at 11 A. M., with Mr. George W. Robinson in the chair and Mr. F. M. McMillan chosen as secretary. The report of the special committee on a plan of organization was received and adopted substantially with few amendments, which made no radical changes in the plan. The plan provides for the incorporation of a company to be known as the Gulf Coast

Lumber Co., the capital stock of which is to be \$50,000, which may be increased to \$100,000, of which 10 per cent. shall be subscribed for and paid in. The stockholders are to be only those firms that are engaged in the manufacture of pitch-pine lumber for foreign and domestic export by water. Grades and classifications are to be established, and the companies are to become the sales agents of the Gulf Coast Lumber Co., to whom they sell the entire output of their mills. The following were elected directors of the company: J. W. Coombs, Apalachicola, Fla.; A. M. McMillan, P. K. Yonge, E. S. Skinner, Pensacola, Fla.; J. W. Black, William March, Mobile; E. Bloomfield, J. L. Dantzer, J. W. Farre, Pearl River. Mr. George W. Robinson was added to the committee. The report of the classification was read and referred to the board of directors, to be disposed of at their next meeting.

#### Industrial Interests at Dallas.

[Special Cor. Manufacturers' Record.]

Dallas, Texas, December 9.

Dallas is still sharing in the general revival of business throughout the country. The large amount of building, both residence and business, seems to show no signs of diminishing. While no notably large enterprises have been started during the past few months, there have been a large number of desirable smaller institutions opening up here.

The incorporation of a new wholesale paper company is announced, making three large concerns of this kind in the city.

The movement looking to holding a great semi-centennial exhibition at Dallas in the fall of 1896 is gaining ground. It is hoped to enlist the various communities in Texas, as well as the federal government. The present State fair grounds are well laid off, and in good condition for the accommodation of such an exposition.

The new city directory, just issued, shows a population of 63,645, against 57,150 twelve months ago—a very large percentage of increase.

Construction work on the Terminal Railway continues without interruption, and it is now believed that this road means more for Dallas than any enterprise inaugurated here for years. Under its franchise from the city it will afford entrance for all new roads which choose to make use of its tracks to the very heart of the wholesale portion of town. Since construction work commenced, more prominent railway officials have visited Dallas (for the purpose of examining the road) than during any similar time in the history of the city. Among others have been Edwin Gould, President Fordyce, of the Cotton Belt; General Manager Truesdale, of the Chicago, Rock Island & Pacific, from Chicago, and Col. G. M. Dodge, of the reorganization committee of the Union Pacific, Denver & Gulf. These officials all intimated their intention of extending their roads to Dallas.

There is a great deal of talk about building more cotton mills in Dallas. The State has only two in operation, those in Dallas and Galveston, but the people are fast waking up to the desirability of encouraging cotton manufacturing. However, they do not seem to take hold of the matter as they should, feeling that they do not understand the business, that fuel is too dear, etc. For proof that cotton manufacturing can be made eminently profitable in certain sections of Texas, however, it is only necessary to call attention to the big mill now in operation in Dallas, with its 400 operatives, running every working day in the year, and for the last year running far into the

night. As to fuel, steam coal of good quality is laid down on the tracks in Dallas at \$2.50 per ton, fully as cheap as at a majority of the mills in the Southern States, and much cheaper than it can be had in New England, where steam is used, or its equivalent in water-power.

People in Texas have not become accustomed to building cotton mills, and no doubt fear that a plant would have to go through the process of failure and reorganization and squeezing out of the little stockholders. If a mill could be organized in Dallas on the following plan, i. e., go to a New England manufacturer who is anxious to establish a Southern plant, offer to put up \$150,000, he to put up a like sum, build and equip a mill for say, \$200,000, and reserve \$100,000 for working capital, there is scarcely a doubt but it would be a success from the start and yield handsome dividends. The mill already here last year declared 10 per cent. on its capital stock of \$200,000, besides building and equipping a large addition, giving employment to 100 more operatives.

There is plenty of surplus capital here. Every time a strong bank is organized the stock is subscribed for by Dallas people in large amount, and if a cotton mill could be organized upon a business basis, with a Northern millman heavily interested, insuring economical and proper management, there is scarcely a doubt that \$150,000 stock would be subscribed and paid for in a very short time.

With the mill already here to furnish a sufficient sprinkling of skilled operatives to start off a new plant, with the abundant supply of good labor, the 70,000-bale annual production of Dallas county alone, and being located in the heart of the cotton belt of the State, cheap building material, abundance of pure artesian water for steam and other purposes, good health, mild climate and cheap coal—all these advantages, if properly presented to Northern millmen, should secure for Dallas not one, but many new cotton mills.

McClure's Magazine for January is to have an article giving the whole story, never yet published, of Mr. Blaine's relation to his own candidacy for the Presidency in 1884. It is written by Murat Halstead, whose opportunity for knowing all the facts was unequalled; and it embodies conversations with Blaine and an important unpublished letter written by him a few days after his defeat. Some very interesting portraits will accompany the article, and the Blaine letter will be reproduced in fac-simile.

One of the recent trade editions of Southern papers is that issued by the Rome (Ga.) Tribune. It contains forty pages, filled with reading matter, which does ample justice to the resources and advantages of Rome and the country tributary to it. Under the circumstances the Tribune can well congratulate itself on the quality of the matter and extent of its enterprise. Rome has recently acquired much distinction by its enterprise in securing cotton manufactories. In addition to the Massachusetts mill, which is to cost \$600,000, and which is now rapidly being constructed, a dispatch states that the people have by liberal donations obtained another concern which will represent as large an outlay. While Rome is not a large city, its people by their energy and ability have set an example which might be copied by many other communities throughout the South. The Manufacturers' Record desires to congratulate the Tribune upon its praiseworthy work for the city, of which the trade edition is but a sample.



# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD** seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

## ALABAMA.

Anniston—Rolling Mill.—Jno. S. Mooring, J. K. Dimmick, H. B. Cooper and J. J. Willett have leased the Anniston Rolling Mills, and will put same in operation after repairs and minor improvements are completed. The new company will incorporate as the Anniston Iron & Steel Co., with a capital of \$50,000.

Gadsden—Furnace.—The Alabama Furnace Co. will put its plant in blast next month.

Gadsden—Iron Mines.—The O'Conner ore mines, idle for five years, will be reopened at once.

Gurney—Coal and Iron Mines.—The Tennessee Coal, Iron & Railroad Co. will within the next month start up three mines which have been idle since the great strike of 1894. The company for the last sixty days has been short from 200 to 500 tons of coal a day in its orders, and is starting to work to increase its output. The Gurney mines are being pumped out, and as soon as all the water is out several hundred men will be put at work.

Mobile—Sewer System.—The council committee on sewerage has refused to entertain any proposition for a sewerage system which entails the granting of a franchise. On December 23 a meeting will be held to take final action and recommend a plan for the construction of a sewer system.

Weedowle—Gold Mine.—Thos. A. Dolan is opening a gold mine.

Woodstock—Iron Mines.—H. F. De Bardeleben, of Birmingham, and associates will reopen the brown ore mines near Woodstock.

## ARKANSAS.

Camden—Manufacturing and Mining.—Incorporated: The Hibbard Manufacturing & Mining Co., capital stock \$10,000; incorporators, A. P. Guess, president; R. Hibbard, vice-president; Louis Bowline, secretary and treasurer; S. Q. Sevier, W. P. Holmes, C. R. Ritter, Howell Atwater.

Fort Smith—Bedding and Mattress Factory.—The new Fort Smith Bedding Co. has secured building and will equip for manufacturing mattresses, bedding and excelsior.\*

Wynne—Stave Mill.—The Kennedy & Morelock Stave Co. is improving its mill to increase capacity about 25 per cent.\*

## FLORIDA.

Cottontdale—Turpentine Farm.—Carter & Co., of Georgia, have started a turpentine farm near Cottontdale.

Gainesville—Electric-light Plant.—J. M. Graham, H. E. Taylor and F. W. Cole have petitioned the city council for an electric-light-plant franchise.

Millview—Saw Mill.—The Southern States Land & Timber Co. has put new machinery in and otherwise improved its saw mill.

Osceola—Phosphate Plant.—W. E. Simmons is erecting a phosphate plant; will employ twenty men.

Sanford—Extract Works.—A factory will be established for manufacturing extract from saw palmetto. Byron Holbrook, of Milwaukee, Wis., is interested.

Tallahassee—Cannery.—A Mr. Dickerson contemplates erecting a cannery.

## GEORGIA.

Adairsville—Planing Mill.—Payloski & Cox will erect a planing mill for making all kinds of moldings, turned work, stairs, sash, doors, etc.\*

Bainbridge—Turpentine Farm.—Powell Bros., who lately bought a large area of timber lands, will establish turpentine farm.

Blairsville—Gold Mine.—M. L. Bowline and E. S. Crawford are reported as developing a gold mine.

Macon—Barrel Factory.—Ham, Feagin & Johnson are now rebuilding their barrel factory, and have about purchased all the machinery needed.

Macon—Ice-machine Works.—The Miles Refrigerating & Machinery Co., Cincinnati, Ohio, manufactures ice machines and refrigerators, and contemplates locating its works in Macon. S. S. Miles, president of the company, is looking for a site.

Newnan—Cigar Factory.—M. Salbide is organizing a cigar manufacturing company.

Rome—Cotton Mill.—The new 10,000-spindle and 1000-loom mill, to cost \$600,000, has been located, as reported, by David Trainer, of Fort Mill, S. C., and D. N. Trainer, of Chester, Pa. W. B. S. Whaley, of Columbia, S. C., has made a proposition to increase the capital to \$1,000,000.

Rome—Fertilizer Works.—E. T. and J. N. McGhee, J. W. and J. A. Rounsaville have applied for a charter for a fertilizer manufacturing company, with a capital stock of \$10,000.

Rome—Tannery and Shoe Factory.—Capt. Jno. Seny is arranging for the location of a tannery, shoe and harness factory to employ 200 hands.

## KENTUCKY.

Louisville—Coal and Timber Lands.—The estate of Archibald Borders has sold to Eastern parties 8000 acres of coal and timber lands for \$20,000.

Louisville—Woolen Mill.—Report says that Walker Richards and associates contemplate establishing a large woolen mill.

Madisonville—Water Works.—The city will submit to a vote the proposition for issuing \$21,000 or more in bonds for water works. Address the mayor.

Owensboro—Cellulose Factory.—Philadelphia parties will locate a factory for manufacturing corn-stalk cellulose.

## LOUISIANA.

Abbeville—Sugar Refinery.—W. D. White, of the Louisiana Land & Development Co., has stated that a Mr. Libby, of La Fourche Crossing, will try to organize a company to erect a central refinery. Address Mr. White at Abbeville.

Alexandria—Electric-light Plant.—The city will double the capacity of its electric-light plant, putting in dynamos, boilers, engines, etc. Address the superintendent city electric-light plant.

Crowley—Brick Works.—Thos. J. Bateman, of Philadelphia, Pa., will erect brick works at Crowley.

New Orleans—Woodenware Factory.—The Roy-Mouras Co., Limited, has been incorporated to manufacture wooden and willowware, etc., with a capital stock of \$30,000. Alphonse Gamard is president, and Jos. A. Roy, treasurer.

New Orleans—Mercantile, etc.—E. Conery & Son, Limited, has been incorporated with a capital stock of \$50,000, and E. Conery, Jr., president, and W. Wood, secretary-treasurer.

New Orleans—Stock-yards.—Las Conchas Island Stock Farm Raising Co., Limited, has been incorporated to buy and improve lands, etc., with a capital stock of \$5000; Felix Couturie, president; Hippolyte Laroussini, vice-president, and James Prevost, secretary.

## MARYLAND.

Baltimore—Glass Works.—The new glass plant reported last week as to be erected at Westport will be known as the Baltimore Glass Manufacturing Co., and all the machinery needed has been secured; also a building in which to install same. The company can be addressed care of J. A. Oakes, 528 Elmwood avenue, Buffalo, N. Y., from which city the capital is to be supplied for the enterprise.

Baltimore—Land Improvement.—Edwin W. Levering, L. M. Levering, Richard Walz and others have incorporated the Sherwood Improvement Co., to improve land, etc.; capital stock \$15,000.

Baltimore—Telephone Systems.—The Southern States Telephone Co., with a capital stock of \$100,000, has been organized to construct telephone systems, etc.; Charles E. Fink, president; A. G. Davis, vice-president, and R. B. Hazlett, secretary-treasurer.

Baltimore—Manufacturing.—The Denber Manufacturing Co., for the manufacture and sale of novelties and labor-saving devices, has been incorporated by Messrs. Charles C. Denison, Fred. I. Mosher, Daniel H. Emory, Jasper M. Berry, Jr., and Jasper M. Berry.

Cumberland—Brewery.—The Cumberland Brewing Co. is making extensive improvements to its plant, including new buildings, new ice machinery, bottling machinery, increased capacity, etc.

Ellicott City—Shirt Factory.—The building of a new shirt factory in Ellicott City for Oppenheim, Oberndorf & Co., of Baltimore, will be at once commenced. The dimensions of the structure will be 60x135 feet. It is expected that after the new factory is completed about 200 operatives will be employed.

Washington, D. C.—Bottling-house.—The Washington Brewing Co. will erect a bottling-house, two stories, 50x35 feet, and a dryhouse, two stories, 40x50 feet.

## MISSISSIPPI.

Jackson—Cordage Factory.—The Camp Cordage Factory will be erected.

Shubuta—Telephone Line.—Contract has been let to C. W. Gallagher, of Meridian, for the construction of a telephone line from Shubuta, Miss., to Cocon, Ala.

## MISSOURI.

Hillsboro—Creamery.—Chartered: The Jefferson County Creamery Association, capital stock \$4200; incorporators, Jos. Hoeken, D. L. Clemens, Chas. Daring and others.

Kansas City—Building Company.—The Huckle & Sexton Contracting & Building Co., capital stock \$50,000, has been incorporated by George Huckle, Samuel Sexton and Robert H. Hamilton.

Kansas City—Commission Company.—Chartered: The Chicago Live Stock Commission Co., capital stock \$25,000; incorporators, Thomas B. Lee, W. T. Atkins, J. D. Embarks and others.

Maitland—Mercantile.—The Broad Gauge Mercantile Co., of Maitland, capital stock \$30,000, has been incorporated by Charles T. Graves, Jos. R. and Alfred W. Collison.

Springfield—Land Company.—Chartered: The Missouri-Arkansas Land & Immigration Co., capital stock \$100,000; incorporators, E. Perry, J. H. Bouslog and J. P. McCammon.

St. Louis—Cot Works.—The Abbie Folding Cot Co., capital stock \$2000, has been incorporated by Abbie L. Newman, James Nicholson, T. J. Terry and Adam M. Nicholson.

St. Louis—Mining.—Incorporated: The Ortiz Mining Co., capital stock \$40,000, by R. H. Stevens, Albert Heege, E. R. Bigot and others.

St. Louis—Supply Company.—The H. C. Wright Office Supply Co., capital stock \$2000, has been incorporated by H. C. Wright, Wm. H. Williams and M. P. Jackson.

St. Louis—Piano Company.—The A. O. Field Piano Co., capital stock \$30,000, has been incorporated by A. O. Field, H. L. Mason, G. D. Markham and others.

St. Louis—Realty.—The Rutledge & Kirkpatrick Realty Co., capital stock \$10,000, has been incorporated by Robert Rutledge, Claude Kirkpatrick and Rena Bakewell.

Union—Electric Plant.—Chas. L. Moore has commenced surveys for a proposed electric-power plant to be built on the Meramec river.

Unionville—Electric-light Plant.—The city

is inviting bids for the erection of the proposed \$18,000 electric-light plant.\*

Westport—Electric-light Plant, etc.—The city contemplates voting on \$75,000 in bonds for electric-light plant, fire stations, water mains, etc.; A. S. Marley, city attorney.

## NORTH CAROLINA.

Ashboro—Gold Mine.—The Empire Mining Co., which was chartered several months ago, has purchased and is now preparing to develop the Henry, Pierce & Laughlin mines. It is proposed to equip and operate 100 to 200 tons free milling plant within a short time, and later on a cylinder plant for sulphurets.

Asheville—Cotton Mill.—It is reported that Frank Cox will build a \$500,000 cotton mill.

Bessemer City—Cotton Mill.—The recent purchasers of the mill building have incorporated the Southern Cotton Mill, and will put in 8000 spindles and 302 looms; S. J. Durham, secretary.

Charlotte—Ice Plant.—A. R. Logie will erect two ice machines.

King's Mountain—Cotton Mill.—The Enterprise Cotton Mills will probably put in twenty more looms.

Morganton—Ice Plant.—The Hygela Ice Co. will put in a 10-ton ice plant and an eighty horse-power boiler.

Pilot Mountain—Tobacco Factory.—Daniel Marion, of Pilot Mountain, and Doss Bros., of Rockford, will manufacture plug tobacco.

Rocky Mount—Planing Mills.—Harris, McHenry & Baker, of Elmira, N. Y., have purchased L. V. Parish & Co.'s \$20,000 planing mills.

Rutherfordton—Realty.—The Watkins Real Estate Co. has been incorporated, with M. H. Justice, president, and C. W. Watkins, general manager.

## SOUTH CAROLINA.

Charleston—Knitting Mill.—The Charleston Knitting Mills has been organized, with W. G. Chisolm, president and manager; R. B. Leiby, secretary-treasurer; will employ thirty-five operatives. Charter has been obtained; capital stock \$25,000.

Columbia—Cotton Mill.—It is reported that Aretas Blood (of New Hampshire), now president of the Columbia Mills Co., and New England associates have decided to erect another big mill.

Gaffney—Land Company.—A charter has been granted to the Cherokee Land Co., with F. G. Stacey, president and treasurer; J. D. Jones, vice-president; N. H. Littlejohn, secretary.

Spartanburg—Cotton Mill.—L. P. Walker is trying to organize a cotton-mill company.

Whitney—Cotton Mill.—The Whitney Manufacturing Co. will enlarge its plant.

## TENNESSEE.

Chattanooga—Car-coupler Works.—The Bradford Car Coupler Co. has been incorporated by H. Clay Evans, George W. Barfield and others. Messrs. Barfield and G. H. Fierce, of this city, are the patentees, the former being chief car inspector at Chattanooga of the Southern Railway.

Dante—Tannery.—E. M. Craig & Co. will enlarge their tannery.

Jonesville—Creamery.—A \$4000 stock company has been organized to erect a creamery.

Kingston—Iron Mines.—The Tennessee River Iron Ore Co. is actively developing mines near Kingston.

Knoxville—Iron Mills.—The Knoxville Iron Co. will overhaul its nail mill and put sixty men to work in same.

Knoxville—Shoe Factory.—E. T. Slatter & Co. have purchased the Knoxville Shoe Factory and will make improvements.

Knoxville—Stove Foundry.—Ohio parties are organizing a \$40,000 stock company to establish a stove foundry in Knoxville.

Knoxville—Woolen Mill.—Thomas Parham, of Maryville, Tenn., contemplates erecting a large woolen mill in Knoxville.

Middleton—Saw Mill.—Killpatrick & Brown will start a new saw mill.

Middleton—Saw Mill.—G. W. Hughes's burned saw mill will be rebuilt at once.

Nashville—Ice and Cold-storage Plant.—R. W. Dugan, of Covington, Ky., has purchased the Nashville Ice Factory and will operate same; will also put in cold-storage plant.



Pioneer—Coal Mine.—Curwin & Shelton are opening a coal mine.

South Pittsburg—Pencil Mill.—The Eagle Pencil Co. is enlarging that department of its mill used in the manufacture of cedar oil.

#### TEXAS.

Beaumont—Foundry.—O. B. Greeves is now erecting his new foundry; building is 182x42 feet, two stories high.

Beaumont—Ice Plant.—The Beaumont Ice, Light & Refrigerating Co. has purchased an additional 25 ton machine.

Beeville—Electric-light Plant.—George W. Greathouse has organized a company to erect an electric-light plant.

Dallas—Cotton Gins, etc.—The Thomas Gin & Machine Co., capital stock \$20,000, has been incorporated by Russell Myrick, R. S. Thomas and S. M. Hardwick.

Dallas—Paper Company.—The Dallas Paper Co., capital stock \$10,000, has been incorporated by R. Liebman, R. C. Pollock and S. J. Hay.

Fort Worth—Packing-house.—The Chicago & Fort Worth Packing Co., with the principal office at Chicago and a capital stock of \$300,000, has been incorporated by F. C. Sawyer, H. Flowille Hardy, G. W. Beaver, H. R. Hutton and A. C. Lazarus.

Fort Worth—Real Estate, etc.—The Imboden Bros. & Co. has been incorporated for the purpose of accumulating and lending money, erecting buildings and doing a general real estate business; capital stock \$30,000; incorporators, J. D. Imboden, A. D. Goodenough, L. L. Hawes, Alexander Canto and J. D. Imboden, Jr., and James Gilford Palge, of London, England.

Rockdale—Coal Mines.—The Black Diamond Coal Co., capital stock \$10,000, with privilege of increase to \$400,000, has been incorporated by A. Wolf, Herman Vogel and E. Reiser; purpose, to do a general coal-mining business.

Temple—Sewer Company.—The Temple Sewer Co., capital stock \$4000, has been incorporated by Wm. D. Cox, F. A. Vennay and R. L. Hollingsworth.

#### VIRGINIA.

Alexandria—Telephone Exchange.—The Home Telephone Co., of Baltimore, Md., will establish a telephone system in Alexandria.\*

Charlottesville—Electric Lighting.—The Charlottesville & University of Virginia Electric Light & Gas Co. has made a proposition to light the city.

Danville—Bridge.—The commissioners will construct an iron or steel bridge across Sandy creek near Knoxville.\*

Emporia—Veneer Mill.—Chas. Baker and J. A. Hartley, forming the Bellfield Enterprise Co., have established a veneer mill; building is two stories high, 100x40 feet.

Falls Church—Water Works.—The construction of water works is talked of, and M. E. Church is interested.

Fredericksburg—Silk Mills.—Walter G. Stearns, who has been operating the Virginia Silk Mills under a lease, has purchased the plant.

Radford—Flour Mill.—J. F. Martin is building a large flour mill.

Norfolk—Electric Plant.—Paul K. Boyd, B. N. Sperry, Geo. Russell and others have incorporated the Norfolk Electric Light & Power Co., to supply electricity for light and power. The capital stock is \$15,000, with privilege of increase to \$500,000.

#### WEST VIRGINIA.

Huntington—Machine Shop.—Edwin Turley is erecting a machine shop two stories high, 50x42 feet.\*

Piedmont—Coal Mines.—The Hines-Jenkins Coal Co. has been formed, and will develop 700 acres of coal lands near Piedmont.

West Virginia—Coal Mines.—The Monongahela River Railroad Co. (office, B. & O. Building, Baltimore, Md.), has purchased 15,000 acres of coal lands in West Virginia, and will develop same.

Wheeling—Oil Wells.—Chartered: The Charlotte Oil Co., with a capital of \$100,000, by A. C. Davis and others.

#### BURNED.

Anniston, Ala.—J. N. Woods's cotton gin.

Buckner, Texas.—Cooper & Reynolds's cotton gin.

Cottonwood, Texas.—E. M. Norton's cotton gin; loss \$3800.

Eutaw, Ala.—Walter Eatman's cotton gin and grist mill.

Forreston, Texas.—D. B. Bullard's gin.

Hatopon, S. C.—A. A. Browning's cotton gin.

Lake Providence, La.—G. F. Blackburn's cotton gin.

Lake Providence, La.—G. F. Blackburn's cotton gin.

Middleton, Tenn.—G. W. Hughes's saw mill.

Murphy, N. C.—The courthouse; loss \$55,000.

Natchez, Miss.—A. S. Merrill's cotton gin.

#### BUILDING NOTES.

Baltimore, Md.—Theatre.—Nixon & Zimmerman, of Philadelphia, Pa., will expend nearly \$20,000 in redecorating, rearranging and reseating the Baltimore Academy of Music.

Baltimore, Md.—Schools.—The inspector of buildings has submitted plans for two new public-school buildings. The plans for No. 9 were prepared by Alfred Mason, and are for a building three stories in height, with eight classrooms on each floor. It is to have an arcade front, with the entrances from each side of the arcade. School building No. 18, the plans for which were prepared by George Worthington; is to be two stories in height, with eight classrooms on each floor. It also will have an arcade front, four stairways, and the playground for each department will be 55x90 feet.

Beaumont, Texas—Hotel.—Geo. Matthews has made plans for the \$10,000 hotel recently noted as to be built at Port Arthur by the Port Arthur Land & Town Co. Address C. H. Figley, manager, at Beaumont.

Charlottesville, Va.—Church.—The Presbyterians are making efforts to erect a \$20,000 church building, and a committee has been appointed to receive plans. Address R. H. Wood, chairman.

Chattanooga, Tenn.—Dwelling.—A. J. Wisdom has let contract for a \$4500 dwelling.

Estelle, Tenn.—Depot.—The Chattanooga Southern Railroad will build a depot.

Forsyth, Fla.—Courthouse.—The Big Four Contracting Co., of Knoxville, Tenn., has contract to build new \$60,000 courthouse.

Galveston, Texas—Depot.—The Gulf, Colorado & Santa Fe Railroad is seeking site for a proposed union depot.

Harriman, Tenn.—Depot.—The Cincinnati Southern Railroad will build a \$3000 depot at Harriman Junction.

Jacksonville, Fla.—Schools.—A committee has been appointed, W. A. Baur, chairman, to expend \$30,000 on two new school buildings.

Killeen, Texas—Stores.—Keylich & Boase will build three storehouses 35x80 feet.

Knoxville, Tenn.—Church.—A church building will be erected. Address D. C. Richardson.

Louisville, Ky.—Warehouse.—The Ahrens & Ott Manufacturing Co. has built a six-story warehouse.

Memphis, Tenn.—Hall.—Plans by Shaw & Weathers have been accepted for the proposed Odd Fellows' hall; building to be five stories high, and cost not over \$55,000.

Nashville, Tenn.—Business-houses.—Mrs. Thos. Menees will erect a block of four-story buildings 86x137 feet, to cost \$35,000.

Parkersburg, W. Va.—Auditorium.—J. W. Leese and others will build an auditorium 80x120 feet.

Washington, D. C.—Church.—Stutz & Pease and J. G. Myers have prepared plans for a synagogue to cost \$50,000.

Washington, D. C.—Dwellings.—W. S. Plaid has prepared plans for seven three-story dwellings, to have furnaces and hot-water heat, etc. A. Goenner is revising plans of an apartment-house to be six stories high.

Washington, D. C.—Hotel.—A. P. Clark, Jr., 605 F street, is preparing plans for a six-story hotel 40x72 feet for John Riley.

Weston, W. Va.—Hotel.—The R. P. Camden Hotel Co., with capital stock of \$50,000, has been incorporated by J. N. Camden and S. D. Camden, of Parkersburg; A. H. Kunst, John Brannon and Jacob Koblebard, of Weston.

#### RAILROAD CONSTRUCTION

##### Steam Railways.

Aberdeen, N. C.—It is reported that arrangements are being made to extend the Moore County Railroad from Aberdeen to Fayetteville, N. C. W. B. Eekhout is manager.

Beaumont, Texas.—It is reported that a contract has been let to L. J. Smith, of Kansas City, for the construction of a line from

Port Arthur to the Sabine & East Texas Railway. [Port Arthur is the proposed new seaport on Sabine lake, to be the terminus of the Kansas City, Pittsburg & Gulf system.—Ed.]

Beaumont, Texas.—It is stated that the Kansas City, Pittsburg & Gulf has purchased 25,000 tons of steel rails for use on the extension from Shreveport to Sabine Pass.

Buckhannon, W. Va.—Upshur county, West Virginia, has issued \$50,000 in bonds to aid the building of the Point Pleasant, Buckhannon & Tygart's Valley road through that county. L. E. Mullins is chief engineer.

Bunkle, La.—Work has begun on the construction of the Bunkle division of the St. Louis, Avoyelles & Southwestern road, of which F. M. Welch is president.

Calvert, Texas.—It is reported that the Calvert & Brazos Valley Company is considering an offer from Northern parties to build the road to the coalfields.

Centerville, Tenn.—It is reported that the Duck River Phosphate Co. will have its nine-mile road from Totty's Bend to Centerville completed about January 1.

Chattanooga, Tenn.—A project is being considered to build an inclined cable railway to the summit of Signal mountain on Walden's Ridge. T. J. Nicholl is interested. The distance is about 900 feet.

Chickasawba, Ark.—The Chickasawba, Luxora & Gilmore Railway Co. has been formed by John B. Driver, L. W. Gosnell and others to build a 12-mile road in Mississippi county.

El Dorado Springs, Mo.—Prest. John C. Orrick, of the company which proposes to build the line from El Dorado to Kansas City, states that construction work on the line will begin at an early date. His address is at St. Louis.

Gulfport, Miss.—S. S. Bullis, of Olean, N. Y., general contractor for the Gulf & Ship Island road, has signed a contract with Rowles & Dearborn to build the bridges and trestle work required for the line.

Harrisonburg, Va.—J. B. Walker, engineer of the Chesapeake & Western Railroad, reports that the road will be in operation by the 15th of January, terminating at present at Bridgewater and Harrisonburg.

Knoxville, Tenn.—Ethebert Fairfax, Leonidas F. Wynne, Hugh G. Frazier, James H. Wynne and Jonathan Tipton have secured a charter of a company to be known as the Knoxville, Cumberland Gap & Louisville Railway Co. The charter grants rights to construct a railway from Knoxville to Cumberland Gap, with power to acquire all the lines of railway in the States of Tennessee, Virginia and Kentucky, which were formerly in the Knoxville, Cumberland Gap & Louisville Railway system.

Knoxville, Tenn.—It is reported that the Atlanta, Knoxville & Northern Company, recently incorporated at Albany, N. Y., is to take charge of the Marietta & North Georgia and extend it to Atlanta; also to form a combination with the Knoxville, Cumberland Gap & Louisville and Norfolk & Western.

Little Rock, Ark.—An order has been issued by the Federal Court authorizing the receiver of the Little Rock & Memphis road to make a survey for a proposed extension of the road west. This move would indicate that the bondholders will buy in the road when it is sold.

Memphis, Tenn.—It is stated that a new railroad line is projected from Memphis to Cairo, Miss., and that surveys are about to be made for it. Hon. H. P. Rogers, of Marianna, Ark., is interested.

Opelika, Ala.—So far two miles have been completed and eight miles graded of the proposed line between Opelika and Lafayette.

Parkersburg, W. Va.—An issue of bonds is contemplated by the Monongahela River Railroad Co., of West Virginia, to build a number of short branch lines to develop coal territory. The Monongahela Coal & Coke Co., owning 15,000 acres of coal lands in Marion and Harrison counties, West Virginia, has been merged with the railroad company. Hon. J. N. Camden, of Parkersburg, is president of the railroad.

##### Electric Railways.

Birmingham, Ala.—The Birmingham Railway Co., of which Robert Jemison is manager, is preparing to use the trolley system on its Behrens Park division.

Front Royal, Va.—A company may be organized to construct a trolley line from Culpeper to Front Royal. The distance is thirty-five miles.

Graham, Va.—The proposed electric line will be three miles in length. Walter Graham is its promoter.

Louisville, Ky.—Chief Engineer Rowland

Cox, of the line between Louisville and Fairfield, writes the Manufacturers' Record that it will be a trolley line thirty miles long. The company will want bridges, rails, rolling stock, also power-house estimates; no contracts let.\*

Louisville, Ky.—Chief Engineer Rowland Cox, of the Louisville, Mount Washington & Fairfield electric line, has completed surveys of the road, and is preparing to obtain estimates for construction. His address is care Willard Hotel.

New Orleans, La.—The St. Charles Street Railway Co. expects to begin operating its new trolley lines about January 1. Alden McLellan is president.

New Orleans, La.—The New Orleans Traction Co. is completing its Levee division trolley line, and will operate it next month.

Scranton, Miss.—Martin Turnbull has received a franchise to build a street railway between Scranton and Pascagoula. It is to be completed in four months after beginning work.

Sparta, Tenn.—J. R. Tubb and others are interested in a proposed electric line between Sparta and Cookeville. The road will be about twenty miles long.

#### Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

Robbin Machinery.—L. F. Edwards, secretary, Athens, Ga., wants to buy bobbin machinery.

Boiler.—T. W. McCabe, Martinsville, Va. (not W. Va., as printed last week), will need a large steam boiler.

Boiler.—The Alabama & Georgia Lumber Co., Montgomery, Ala., wants a 100 horse-power tubular boiler, with stack and fixtures complete; second-hand.

Boiler and Engine.—Marshall & Smith, Apalachicola, Fla., will buy sixty horse-power boiler and fifty horse-power engine.

Boiler and Engine.—Edmonds Bros. & Co., Grapevine, Tenn., will buy a ten horse-power engine and boiler.

Boilers and Engine.—See "Electric Light Plant."

Bridge.—Bids will be received until January 6 for the construction of an iron or steel bridge, with stone abutments, at Danville, Va. Address P. B. Farmer, F. A. Millner and R. A. James, commissioners.

Corn and Grist Mill.—W. H. Tomney, Glade Spring, Va., wants a portable grist mill and corn sheller.

Cotton-mill Machinery.—The Star Thread Mills, Watkinsville, Ga., wants a good lot of card clothing and new speeders.

Electric-light Plant.—Bids will be opened January 10 for the erection of an electric-light plant to cost not more than \$18,000. Address G. H. Gardner, city clerk, Unionville, Mo.

Electric-light Plant.—The Satilla Manufacturing Co., Waycross, Ga., wants a 1000-light incandescent dynamo, 50-light arc dynamo, 150 horse-power engine and two sixty to eighty horse-power boilers; new or good second-hand.

Engine.—The Kennedy & Morelock Stave Co., Wynne, Ark., contemplates buying an automatic engine, eighty to 100 horse-power, after January 1.

Engine (gas or steam).—G. E. Clapp, Otsego, Mich., wants a three to five horse-power gas or steam engine, second-hand, at low price.

Engine.—W. H. Tomney, Glade Spring, Va., wants an upright three horse-power engine.

Ice and Refrigerating Machinery.—Henry Reese, Box 57, Shreveport, La., wants refrigerating machinery.

Ice Machinery.—The Allen & Jemison Co., Tuscaloosa, Ala., is in the market for improved ice machinery.

Knitting Machinery.—The Greer Manufacturing Co. (dealers), Knoxville, Tenn., wants



prices on equipment to make 100 dozen ribbed underwear per day.

**Knitting Machinery.**—Mrs. J. W. Tasker, Piedmont, W. Va., wants prices and catalogues of knitting machinery.

**Knitting Machinery.**—The Atlanta Hosiery Mills, 412 Temple Court, Atlanta, Ga., will want twenty-five knitting machines.

**Lathe.**—Litchford & Brown, Hearne, Texas, wants to buy a second-hand lathe, to swing twenty-four inches, twelve feet long.

**Lathe.**—L. F. Edwards, secretary, Athens, Ga., wants to buy a second-hand Waymorth lathe.

**Locomotive.**—The Alabama & Georgia Lumber Co., Montgomery, Ala., wants an eight-ton Shay locomotive, second-hand, for running on wooden stringers.

**Machine Tools.**—Edwin Turley, Huntington, W. Va., wants second-hand machine tools.

**Motor Vehicles.**—R. L. Martin, Weir Park, Fla., wants to buy a horseless carriage.

**Pipe Organ.**—The First Baptist Church, at Elizabeth City, N. C., is ready to contract with a reliable firm of pipe-organ builders for an organ; C. S. Blackwell, pastor.

**Planing Mill.**—Pavloski & Cox, Adairsville, Ga., will buy planing mill, sash and door machinery, etc.

**Pumping Engine.**—Proposals will be opened January 10 for one 8,000,000-gallon vertical triple-expansion crank and fly-wheel pumping engine, with boilers and appurtenances. Address Commissioners of the District of Columbia, Washington, D. C.

**Railway Equipment.**—The Thos. Burger & Sons Co., Davis, W. Va., wants seven and a half or eight-ton locomotive, six or eight logging cars and eighty to 100 tons of 20 or 25-pound steel T rails; second-hand will do.

**Railway Equipment.**—The Beverley Granite Co., Easley, S. C., wants some light railroad iron, and may need more cars about January 1.

**Railway Equipment.**—F. M. Welch, general manager, Bunkle, La., wants ten miles of relay 55-pound rails and other equipment.

**Railway Equipment (Electric).**—Rowland Cox, chief engineer, care of W. B. Hoke, 433 West Jefferson street, Louisville, Ky., wants approximate estimates per mile for the best style of electric road and full particulars; will need five passenger cars, fifteen freight cars; road to be 4-foot 8½-inch gauge; four feet per 100 feet is maximum grade for road; load will not exceed 150,000 pounds in freight and 20,000 pounds in passengers.

**Saw Mill.**—T. W. McCabe, Martinsville, Va. (not W. Va., as printed last week), will need a saw mill.

**Safe.**—T 781, Sun Office, Baltimore, Md., wants a large second-hand fire-proof safe.

**Saws and Molder.**—Jno. Marshall, Apalachicola, Fla., needs a band saw, circular saw, small molder, etc.

**Scales.**—A 465, Sun Office, Baltimore, Md., wants a wagon scale.

**Stave Jointers.**—The Kennedy & Morelock Stave Co., Wynne, Ark., wants a set of No. 1 Crossly barrel stave jointers, second-hand.

**Telephone Equipment.**—The Home Telephone Co., Fayette and North streets, Baltimore, Md., wants proposals for poles, wires, etc. Address W. J. Atkinson, general manager.

**Water wheel.**—George W. Musser, Atkins, Va., wants to buy a 11, 12 or 13-inch turbine water-wheel for circular-saw mill.

**Well drilling.**—Bids will be opened December 28 for boring a test artesian well at Moore's Bridges. The work must begin with not less than a 12-inch pipe, the size of the pipe not to be less than eight-inch, if practicable, at the depth of 2000 feet, six-inch at the depth of 2500 feet, or four-inch at the depth of 3000 feet; work to begin within thirty days after acceptance of bid, and to be pushed to completion within six months; a bond of \$5000 to be required. For further particulars address R. Y. Zachary, superintendent, Norfolk, Va.

**Well-drilling Equipment.**—The Read Oil & Gas Co., of West Virginia, will probably need boilers, engines, well drills, tubing, casing, tanks, wagons, harness, etc. Address John Suppes, general manager, Cameron, Ohio.

**Wireworking and Mattress Machinery.**—The Fort Smith Bedding Co., Fort Smith, Ark., wants spring-coiling machines, wire-weaving machines, spring-bed makers' machinery, mattress-stuffing machines and pickers or hacklers.

**Woodworking Machinery.**—J. H. & I. H. Dunlap, Ore Hill, N. C., want to buy woodworking machinery.

### TRADE NOTES.

Another order for revolving flat cards from the E. Jenckes Manufacturing Co., Pawtucket, R. I., has been received by the Pettie Machine Works, Newton Upper Falls, Mass.

An educational institution at Thomasville, N. C., can be purchased by the right parties. Details regarding the place are given in the advertisement elsewhere of H. W. Reinhart, Morehead City, N. C.

An opportunity for investment in a tannery, shoe and harness manufacturing business is offered in our advertising columns. Capital seeking investment should find this opening worthy of investigation. G. C. Bradley, of Troy, S. C., can give particulars.

A large electric plant is being put in at the works of the Troy Iron & Steel Co., Troy, N. Y. The engines are furnished by the Ball Engine Co., Erie, Pa., and the dynamos by the Westinghouse Electric & Manufacturing Co. Three 115 horse-power Ball tandem compound engines, direct connected to Westinghouse dynamos, and one 165 horse-power Ball tandem compound engine belted to Westinghouse dynamo comprise the equipment.

As an example of the expansion of export trade for manufactures, may be mentioned the cargo of the steamship Arlandhu, one of the largest steamers plying between this country and Central America. It embraced four large 65-ton compound locomotives, one switching locomotive, two passenger cars and sixty freight cars, and shipped to Jamaica, West Indies, by the New York Equipment Co., of 80 Broadway, New York city. It was bought for use on the Jamaica Railway, now being completed by Jas. P. McDonald & Co., of New York.

A change in the location of the Commonwealth Electric Construction Co. is announced. This concern is now located at 233 South Fifth street, Philadelphia, Pa. Electric dynamos and motors manufactured by the company possess many features worthy of the attention of intending purchasers of such equipment. A number of new models have been brought out, evidencing great attention to details to successfully resist mechanical and electrical strains. As a result, a high order of efficiency is attained. The catalogue issued by the company is an interesting pamphlet giving much useful information.

The Lodge & Davis Machine Tool Co., of Cincinnati, Ohio, is now working 400 men fourteen hours per day. It is making some extensive additions to handle the increasing business. Excavating for the purpose of putting a basement under the entire plant is now being carried on. This will enable the company to remove cutting-off machines, grinders, surplus steel, castings, etc., from the upper floors, and thus provide many hundred feet of valuable space, which will be sufficient room for the addition of such machinery as may be required for supplying the increased volume of trade. The demand from bicycle factories and the picking up of trade in all lines generally has occasioned these additions.

A tone of confidence pervades the opinion of many leading manufacturers in entering the new year. Seranton & Co., New Haven, Conn., notes a cheerful condition of things, and anticipates a prosperous new year. With this concern trade is much improved, especially in such of its lines as pertain to forging machinery, power hammers, etc. A large demand for forgings of all kinds, particularly those used in the manufacture of bicycles, has stimulated business in this line. In the last year it has sold a great many power hammers, having given particular attention to perfecting these hammers for that class of work, and orders now on hand will keep work moving lively in this department for some time.

Cotton-mill men in the South are afforded a good opportunity to secure a well-selected complement of machinery for a first-class yarn mill by the recent change in the style of production by the Easthampton Spinning Co., Easthampton, Mass. This change induces the company to offer for sale a fine collection of machinery, a greater part of which can now be seen running. The list includes a Lord lapper, 36-inch; two beaters, two Kitson lappers, single beaters, 128 Franklin top flat cards, 36-inch; eight Atherton cards, 100 pounds per day capacity; twelve railway heads, three Higgins slubbers, sixty-eight spindles, nine-inch space, 10-inch traverse; forty Fales & Jenks twist-ers, three Foster cone winders and other machinery recognized as of standard type.

An unusual opportunity to secure a fine complement of machinery for a yarn mill is made available by a recent change in the product of a prominent New England factory. This change places on the market a list of standard machinery. Among the machines are a Lord lapper, 36-inch, two beaters; two Kitson lappers, single beaters; 128 Franklin top flat cards, 36-inch; eight Atherton cards, 100 pounds per day capacity; twelve railway heads, three Higgins slubbers, sixty-eight spindles, nine-inch space, 10-inch traverse; fourteen narrow Whitin spinning-frames; forty Fales & Jenks twist-ers; three Foster cone-winders and other machinery of well-known make. The Easthampton Spinning Co., Easthampton, Mass., offers this equipment for sale.

Some idea of the diversity of uses to which electric motors are now being put, and the rapid spread of electricity in different directions, may be gathered by glancing at the list of orders for motors received in the power and mining department of the General Electric Co. during one month this summer. This includes equipment for operating mining machinery, shoe factory, yarn factory, tannery, powder mill, watch factory, ironworking machinery, foundry, hoists for electric cranes, ventilator on a gunboat, propelling electric launches, the operation of elevators, blowing church organs, operating woolen mills. These orders are scattered throughout California, Colorado, Indiana, Ohio, Connecticut, Michigan, Pennsylvania, Rhode Island, Wisconsin and New York; Lima, in Peru, and Rio de Janeiro, in Brazil.

A product whose advantages will readily appeal to the practical man is White House paint. Its attractiveness and cheapness has established it in public favor—a substitute for lime wash, possessing all its sanitary qualities, with the advantages of not cracking, peeling, rubbing or washing off. Its smooth and even appearance makes it an effective covering for both inside and outside work. J. Watts Kearny & Son, New Orleans, La., who manufacture this paint, are kept busy filling orders. As the merits of their product become better known the business of the firm grows correspondingly. Orders from all over the South and from Central America have lately been received for this paint. An extensive exhibit is made at the Atlanta Exposition by this firm, and a number of orders have been traced to this display.

H. E. Collins & Co., Pittsburg, Pa., sole sales agents for the Cahall vertical water-tube boiler, manufactured by the Aultman & Taylor Machinery Co., Mansfield, Ohio, report the following recent sales of Cahall boilers: Douglas Furnaces, Sharpsville, Pa., second order, 250 horse-power; Mahoning Valley Iron Co., Youngstown, Ohio, third order, 300 horse-power; Michigan Alkali Co., Wyandotte, Mich., third order, 250 horse-power; Shoenberger Steel Co., Pittsburg, Pa., seventh order, 500 horse-power; Traders' Paper Co., Lockport, N. Y., 500 horse-power; McKinnon Dash & Hardware Co., Troy, Ohio, 100 horse-power. The boilers for the Douglas Furnaces and Shoenberger Steel Co. are to use blast-furnace gas, those for the Mahoning Valley Iron Co. are for the utilization of waste heat from heating furnaces, while the balance above mentioned are of the standard direct-fired type.

The Powhatan Clay Manufacturing Co., of Richmond, Va., intends dealing direct with the consumer, and has cancelled all of its agencies. In the future all sales of the company will be negotiated from the home office at Richmond. The sales department of the company will be under the management of Mr. F. H. S. Morrison, formerly of Lippincott & Morrison, of Baltimore Md., who has entered upon his duties, and who will give all matters connected with this department his personal attention. It is the intention of the company to manufacture cream white brick only, which is made necessary by the great popularity of and steadily-increasing demand for these brick in the markets of New York and elsewhere. Brick manufactured by this company are pure in color, of fine workmanship and guaranteed not to change color when exposed to the action of the weather, which combined have earned for it the well-merited commendation of leading architects throughout the country.

Charlotte, N. C., is one of the most progressive and prosperous cities in the South, and the reason is very apparent. Every week or so some new manufacturing enterprise is begun. An institution of some importance, and which has very recently been started there, is the Southern Card Clothing Co., manufacturer of machine card

clothing, oak-tanned leather belting, loom strapping, loom reeds, etc. All lines are manufactured from the very best materials, and it is the company's object to produce goods equal to the best offered to the trade. The gentlemen who are interested in this concern have had thirty-five years' experience in the manufacture of the several lines represented in Montreal, Canada, and feel sure they can please. They are the first to manufacture card clothing in the South. In order to begin the introduction of their goods into the Southern cotton mills they will be glad to send samples free. The South should encourage the establishment of such industries, and Southern cotton manufacturers will find it to their interest to do business with home concerns whenever possible.

Power-transmitting equipment is a feature of all plants which calls for skilled workmanship and good judgment to secure the most effective and economical results. Approval of such work installed by the Falls River & Machine Co., Cuyahoga Falls, Ohio, shows that this concern is alive to the conditions for success. Recently the company installed a power-transmitting outfit for the Vicksburg Electric Light Co. at Vicksburg, Miss. In a letter to the company Superintendent F. E. Gallagher, of the electric-light works, says: "The line of shafting and friction clutch pulleys erected in our plant by you are thoroughly satisfactory in every particular, not having given us one moment's trouble since starting. The first time the machinery was turned over we made a 16-hour run without one slight interruption. I consider this very remarkable for new machinery, especially when we never had even so much as a warm bearing. We consider the clutch pulleys and cut-off couplings the best devices of the kind on the market. These work perfectly. I feel that I cannot say too much in praise of the machinery and the way it was erected. We feel justly proud in saying that we have the most complete line of shafting and pulleys in this part of the country."

A somewhat unique application of electricity, and one of interest to the mining industry, has recently been made in the adaptation of electric motors to the operation of a Bennett amalgamator. The amalgamator consists essentially of the following parts: A truck and a frame for supporting the larger part of the machine, arranged to be run forward on a track as the work progresses; a turntable supporting a boom and dipper, the boom and dipper for excavating the dirt, and a revolving cylinder or screen with a hopper. Into this the earth is thrown from the revolving screen, the finer material passing through into the amalgamator, the coarse material being discharged at the end of the drum into the tailings carrier. The amalgamator is a large trough, in which the fine material, after passing through the screen, is amalgamated. In the bottom of the amalgamator is an agitator, moving backwards and forwards, to keep the material well stirred up, and a wheel for raising and discharging the fine tailings after the removal of the gold. The four motors used in operating this machine have been supplied by the General Electric Co., of New York city, and are so constructed as to be thoroughly protected from water or dust. One of these motors is mounted on the frame of the machine, between the turntable carrying the cab and the revolving screen. It is geared to a shaft connected by a sprocket chain to the revolving cylinder, the tailings carrier, the agitator in the amalgamator and the wheel for discharging the tailings at the outer end of the amalgamator. A clutch is provided to throw it into gear with the trucks for moving the entire machine backwards and forwards. The second motor is placed in the cab, and operates the dipper by means of a fine wire rope, passing around the drum to which the motor is geared. The third motor is mounted on the dipper boom, and is geared to a drum placed just above it. Fine wire ropes pass around this drum and are attached to both ends of the dipper handle. The dipper may thus be thrust out or in, according to the requirements of the work. The fourth motor occupies a place in the cab, and drives by means of a beveled gear and large sprocket chain the turntable. This motor is also used to swing the dipper boom around from the front of the amalgamator to a position which allows of the dirt being thrown into the hopper of the revolving screen. The motor operating the cylinder, the tailings carrier and the agitator in the amalgamator runs continuously when the machine is in operation, and is provided with a simple starting rheostat only. The other three motors are controlled by reverse rheostats in the cab, and are handled by one man.



**Iron Markets.**

Cincinnati, December 14.

Notwithstanding the enormous production of pig iron during the month of November, the stocks at the furnaces aggregated December 1 approximately the same as November 1. Either the metal was consumed or augmented the supplies in the mill and foundry yards. As requests to suspend shipments have not exceeded the normal, and as it is a season when consumers usually desire limited stocks of pig iron, inviting stoppage of supplies, the indications are that the iron has been and is being consumed. At the mills possibly a good percentage is being transferred into the warehouses in finished forms for future sale. Manufacturers of stoves, tools and agricultural implements will run full during the winter, as their stocks were generally well sold, and there is a disposition to prepare for an increasing business the coming year. A want of confidence on the part of many manufacturers through the summer as to the future resulted in some being unable to fill orders given them this fall and early winter.

As predicted in our report last week, buying is more liberal as the month grows older. A number of good orders, as to tonnage, have been entered during the week, though some of them at figures below those of last week.

The market is irregular and, in the main, weak, as some furnaces well supplied with cheap ore and fuel are willing to sell at a moderate profit, though some of the furnaces are heroically determined, in view of their small stocks and still well-filled order books, to maintain the autumn prices.

We quote cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry.	\$12 50¢	\$13 00
Southern coke No. 2 foundry.	12 25¢	12 75
No. 1 soft.	12 50¢	13 00
Lake Superior coke No. 1.	13 50¢	15 00
Lake Superior coke No. 2.	13 50¢	14 50
Hanging Rock charcoal No. 1.	16 00¢	17 00
Tennessee charcoal No. 1.	13 50¢	14 00
Jackson county silvery No. 1.	14 00¢	15 00
Southern coke, gray forge.	12 00¢	12 50
Southern coke, mottled.	11 75¢	12 25
Standard Alabama car-wheel.	15 75¢	16 25
Tennessee car-wheel.	14 50¢	15 00
Lake Sup. car-wheel & mail'e.	16 50¢	17 50

Philadelphia, December 14.

According to a gentleman, who writes weekly reports for the Philadelphia Press and the Iron Age, there are two sellers to every buyer, stocks of iron are rapidly increasing and the market is at a standstill. Judging from our own experience, we find the gentleman in question is badly mistaken. We are urged daily by wire to hurry forward shipments on old contracts, and have entered this week considerable new business. None of our furnaces are accumulating much iron. We expect to see an active market after the turn of the new year.

We quote for cash f. o. b. Philadelphia:

No. 1 X standard Alabama.	\$14 00¢	\$14 25
No. 2 X standard Alabama.	13 50¢	13 75
No. 1 X standard Virginia.	14 00¢	14 25
No. 2 X standard Virginia.	13 50¢	13 75
No. 1 X Alabama or Virginia.	13 75¢	14 00
No. 1 X lake ore iron.	16 25¢	16 50
No. 2 X lake ore iron.	15 75¢	16 00
Lake Superior charcoal.	17 50¢	18 00
Standard Georgia charcoal.	17 50¢	18 00

New York, December 14.

It has been generally believed that there would be little, if any, buying of iron before the close of the year. The talk has been that the buyers could pretty generally hold out till January or February, and by that time the furnaces would be so mellow and eager for orders that bed-rock in prices could be had. But the American people have a way of anticipating and discounting the future. A number of shrewd buyers have concluded that the time to strike bed-rock is when demand is light and before the trade generally begins on its next round of laying in raw material. The past week has witnessed quite a run of business apparently of this kind. So far as reported it has been for Northern brands of iron and at prices that represent a compromise be-

tween the recent views of buyers and sellers.

The majority of furnaces, both South and North, prefer to leave the discussion of new contracts until early in 1896, and are quite willing to follow the waiting programme marked out by melters. But there are one or two exceptions in each district, and we are hearing much of the cut prices made by these furnaces. Rolling mills are having the same experiences as the furnaces. The buyers of bar iron propose to hold out until they have got prices down. Foundries in the East are not generally complaining of dullness, and many have all they can do.

In the general business situation there is no change. The feeling is that the new Congress will do nothing to help the President out of his financial fix, and that another bond issue must therefore come. The New York banks use this prospect and the gold exports to maintain stiff rates. Less gold goes out this week than was anticipated, cotton exports having revived and the price improved.

We quote for cash f. o. b. docks New York:

No. 1 X standard Southern.	\$14 00¢	\$14 25
No. 1 X choice Virginia, such as Shenandoah.	14 00¢	14 25
No. 2 X Alabama or Virginia.	13 50¢	13 75
No. 1 soft Ala. or Virginia.	13 75¢	14 00
No. 1 X lake ore coke iron.	16 25¢	16 50
No. 2 X lake ore coke iron.	15 75¢	16 00
Lake Superior charcoal.	17 50¢	18 00

St. Louis, December 14.

The Western iron market shows an undercurrent of small orders which tend to satisfy the furnacemen, and consumers are contented to buy only as their needs demand until after the year's business has been closed.

A considerable tonnage of pig iron was contracted for in June, July and August. These orders are about completed, and unless business comes to a complete standstill a season of activity is near at hand.

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.	\$13 50¢	\$13 75
Southern coke No. 2.	13 25¢	13 50
Southern coke No. 3.	13 00¢	13 25
Southern gray forge.	13 00¢	13 25
Southern charcoal No. 1.	14 50¢	15 00
Ohio softeners.	16 00¢	17 00
Lake Superior car-wheel.	17 00¢	17 50
Southern car-wheel.	16 50¢	17 00
Genuine Connellsville coke.	—	5 45
West Virginia coke.	—	5 40

Chicago, December 14.

Perplexing is the condition of the pig-iron market. Nothing has happened to establish the gait at which we may travel for several months to come in the matter of prices. There exists the same determination on the part of buyers to contract at lower figures, many of them not hesitating to name prices at which they expect eventually to buy, dollars below present quotations.

Buyers who expected to make contracts in December are holding back to see what will happen, and may continue to hold off, buying only in a small way for immediate needs.

The largest producers of Southern irons hold strictly to a schedule of prices established months ago, while some others are openly and freely cutting fully fifty cents a ton. This last may be taken only as an expression of anxiety to secure some early delivery orders during the present lull, or to get new brands established where furnaces have recently gone into blast, or it may be an indication that these particular furnaces are weak in their faith of prices being maintained.

In Northern coke iron there is little doing, and but little iron to offer, most of the stacks being for the time on Bessemer.

In the field of charcoal iron there has been a little demoralization, arising from several sales of odds and ends lots at extremely low figures, if all advices are correct. So far as our knowledge goes, however, the leading and reliable brands, both Northern and Southern, have been held firm at top prices, and one or two good round sales of same are recorded.

In Bessemer irons, standard or malleable, there have been no transactions of note. To sum up, in coke iron there is considerable business in sight, iron that sooner or later must be purchased, but with buyers and sellers so far apart in views, the question is, when?

Occasionally we hear of foundries that are full of work, but the general complaint seems to be a shortage of orders, and with a good deal of uncertainty as to what the prospects are.

We quote as follows f. o. b. cars Chicago:

Lake Superior coke No. 1 fdy.	\$15 00¢	\$15 50
Lake Superior coke No. 2 fdy.	14 00¢	14 50
Lake Sup. charcoal Nos. 1 to 6.	16 00¢	—
Ohio Scotch No. 1.	15 50¢	16 00
Jackson Co., O., silvery No. 1.	14 50¢	16 50
Alabama silvery No. 1.	15 00¢	15 50
Spathite.	14 50¢	15 00
Southern coke No. 1 fdy.	14 25¢	14 50
Southern coke No. 2.	13 85¢	14 10
Southern coke No. 3.	13 60¢	—
Southern coke No. 1 8.	14 10¢	14 35
Southern coke No. 2 8.	13 60¢	13 85
Mannite.	14 50¢	15 00

Buffalo, December 14.

There has been what might be called a break in prices of Northern or Lake ore foundry irons which has had a stimulating effect on trade, and under the influence of these low prices large contracts running through the whole or part of next year have been consummated. These contracts have been made under the impression on the part of buyers that the prices are likely to recover on the turn of the year, and on the part of the sellers that the iron is not likely to net them a loss. Therefore the sales are a fair gamble.

The larger producers of foundry iron in the South are holding firm to the schedule agreed upon some time ago. Some of the weaker furnaces, we understand, have offered concessions in some cases. The odd lots owned by speculators are about cleaned up, which fact has given the Southern producers much encouragement. Prices in general remain as quoted below, but in some instances these have been shaded.

No. 1 foundry strong coke iron	—	at \$14 50
Lake Superior ore.	—	at 14 00
No. 2 foundry strong coke iron	—	at 14 00
Lake Superior ore.	—	at 14 00
Ohio strong softener No. 1.	\$16 25¢	16 75
Ohio strong softener No. 2.	15 25¢	15 75
Jackson county silvery No. 1.	16 25¢	17 00
Southern soft No. 1.	15 15¢	15 65
Southern soft No. 2.	14 65¢	15 05
Hanging Rock charcoal.	—	at 18 50
Lake Superior charcoal.	—	at 16 75

ROGERS, BROWN &amp; CO.

If you want to reach the possible land layers and investors in the North and West who are thinking of locating in the South, advertise in the *Southern States* magazine, published by the Manufacturers' Record Publishing Co., Baltimore, Md.

**Holiday Excursions—Wheeling & Lake Erie.**

Conforming to its past custom, the Wheeling & Lake Erie Railway will sell local excursion tickets from all stations, and through excursion tickets over principal connecting lines. Excursion tickets will also be sold by connecting lines to points on and via the Wheeling & Lake Erie Railway. When purchasing tickets ask for the new Wheeling time card, taking effect December 8, 1895. James M. Hall, General Passenger Agent.

**Atlanta via Pennsylvania Railroad**

For the Cotton States and International Exposition, which is proving a great success and being visited by increased numbers every day, the Pennsylvania Railroad Co. has arranged a most desirable passenger train service with through sleeping cars over their own connecting lines. Excursion tickets are now being sold at the company's principal ticket offices in Baltimore to Atlanta and return at the following low rates and conditions:

\$28.50.	For season tickets, sold until December 15, 1895, limited to return until January 7, 1896.
\$21.25.	For 20-day tickets, sold daily until December 15, 1895.
\$16.00.	For 10-day tickets, sold Tuesday and Thursday of each week until December 24, 1895.

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Holiday Excursion Rates on the B & O.	
In pursuance of its usual policy, the Baltimore & Ohio Railroad Co. will sell excursion tickets between all stations on its lines east of the Ohio river for all trains December 21, 22, 23, 24, 25, 31 and January 1, valid for return journey until January 7, inclusive, at reduced rates.	
Christmas and New Year Holiday Rates via Pennsylvania Railroad.	
For the Christmas and New Year holidays the Pennsylvania Railroad Co. will place on sale excursion tickets between stations on its system east of and including Pittsburg and Erie and west of Elizabeth and Sea Girt (except between the cities of Philadelphia and Trenton proper), at reduced rates. The tickets will be sold and good going December 21, 22, 23, 24, 25 and 31, 1895, and January 1, 1896, and will be good for return passage until January 7, 1896, inclusive.	



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# ATLANTA EXPOSITION SUPPLEMENT.

## EXPOSITION MATTERS.

### Interesting Exhibits Made by Many Houses.

The recent visit of the Baltimore people has resulted in more good for them than they may have anticipated. The exhibitors here think that if Baltimore takes such an exceedingly active interest in an exposition 800 miles from home, it will hardly be possible to calculate the energy and enthusiasm they will throw into their own exposition. Consequently, many exhibitors are talking now of what action they hope to take in Baltimore in 1897, and, so far as can be seen now, Baltimore can be sure of all who are here and many more.

The foreign exhibitors here, especially those from Central and South America, are hoping to make a particularly extensive display in Baltimore, since it is a large port through which an extensive trade may be developed with their countries. This will be an unusual opportunity, both for Baltimore and for these countries, and one which it will be well to take every possible advantage of.

The vigorous objections to the system of awarding prizes which have been handed in to the exposition authorities have resulted in a compromise which is a questionable benefit. It is proposed now that those who received silver medals shall be given gold ones, bronze will be replaced with silver, and so on. I do not see how this is going to help matters, since those who originally received gold medals can get nothing higher, and are now brought level with others to whom a silver medal was given. In several cases further examinations of certain exhibits are being and going to be made, resulting, no doubt, in an award of some kind.

I recognize too clearly the many difficulties involved in making just awards in the numerous exhibits shown here to be willing to criticise the results too closely, but it does seem that had the various juries concentrated their attention a little more on the things before them, more good might have resulted. In the majority of cases but a few moments were spent in any exhibits, and in few that have come to my knowledge was there any examination sufficiently careful to justify an opinion as to merit. The representation of a prominent manufacturing establishment which has in its regular exhibit one feature which is entirely novel, and of great value to towns or manufacturing establishments where artesian water is used, says that the jurors gave only a hasty glance at it, asked a few questions, giving him no time for an explanation, and left. He received a silver medal. In one case I am told the jurors awarded a medal to a coal exhibit made by a company which does not mine on a commercial scale, but simply showed samples of coal from its lands. If this is the case, and I consider my informant reliable, it gives the company an excellent point to use in "booming" its coal lands.

Another feature of this jury tangle is that there was no jury which was considered by the foreign exhibitors as competent to make awards in these sections. Dr. Neiderlein, the Argentine commissioner, took up this matter, and through the strong effort which he has made an

international jury has been appointed and began its work this week.

### City Exhibits in the Forestry Building.

It was an excellent feature in Dr. Fernow's plan for the Forestry Building, at the exposition, that the more important seaport towns which have an extensive trade in naval stores and lumber should have each an exhibit in that building. This exhibit was to consist of a somewhat elaborate frame made of native commercial woods, on which should be spread maps, statistical charts and photographs illustrating the harbor, the commercial connections by water and rail, and the more important lumber mills and manufacturing enterprises of each of the cities. It would have been a good thing for the South, and an interesting and instructive addition to the exposition, if all the seaport cities had responded heartily to this invitation, but the Atlanta spirit of enterprise has not yet taken hold of all her sister cities, and some of them did not realize the importance and magnitude of the exposition in time to have themselves represented here. Those who have come are Brunswick, Savannah, Mobile, Charleston and Wilmington.

The Wilmington exhibit is characteristic of North Carolina modesty, but it is model in the way of beauty and instruction. The frame is made of curly pine and curly poplar, by Fore & Foster. One map shows the city, its harbor, and New Hanover county with its seaside resorts; another map shows Wilmington's commercial connections, by rail and water, with the trade centres on both sides of the Atlantic. A set of fifty medium size and large photographs arranged about these maps and on swinging frames show Hilton Park, the turnpike road, the lumber mills, cotton mills, fertilizer factories, the harbor, cotton compresses and other facilities for manufacture and commerce. Two statistical charts give the population, and foreign exports in lumber, naval stores and cotton, and set forth the city's advantages for commerce and manufactures. On top of the frame are two fine transparencies, one of Wilmington's chief seaside resort, Wrightsville Beach, and the other of cotton steamers loading at the Champion compress, one of the most complete plants of its kind in the United States.

The Savannah, Charleston and Brunswick exhibits are modeled on the same general type, but vary in the details. They show more statistical matter, but fewer photographs and no transparencies. The Mobile city and the Mobile & Ohio Railroad exhibits were consolidated into one, and in addition to the photographs, maps and transparencies, there is a collection of wood specimens which adds to the value of the exhibit.

In 1897 Baltimore will expect to see installed at her exposition exhibits from every important Southern seaport town. The small expense will be repaid many times by the publicity gained.

One of the best examples of the progress made by the South is shown in the Georgia Manufacturers' Building. Every exhibit in this building is the manufacture of Georgia works, and the size and quantity of the exhibits speak more for the progressiveness of the people who have it in hand than could be told in any other way. The idea of erecting this building originated with the Georgia Manufacturers' Association, and it was through their

energetic work that it was carried to completion. The exhibits here show more than anywhere else on the grounds what the South is doing in manufacturing. The progressiveness of Georgia manufactures stands out strongly, and the display made cannot fail to impress everyone who sees it. The Columbus Iron Works, of Columbus, Ga., has a large display of its products, showing sugar-cane and sorghum mills, models of different kinds of turbine water wheels, evaporating pans, rolls, pipe coils and irons, ammonia pumps, such as are used in connection with their well-known ice machines, and other of its well-known products.

The Buntell Manufacturing Co., of Atlanta, displays in the Georgia Manufacturers' Building some fine examples of its office furniture; among these is a fine roll-top desk, with all the improvements, a bank counter and railing, a handsomely-designed staircase and a large plate-glass showcase; also a handsome sideboard finished in mahogany. Samples are also shown of various styles of door knobs, supplied by the Kirkpatrick Hardware Co., of Atlanta, and manufactured by the Yale Lock Co.

The De Loach Mill & Manufacturing Co., of Atlanta, has an extensive display of its productions, including some gear wheels, turbine water wheels, sheaves and saw-mill machinery. An interesting feature of this exhibit is a small saw mill, with rapid return, which is in operation. The circular saw is forty inches in diameter, and the carriage is arranged, as in large mills, so that the sawyer has full control of its speed both going forward and returning, and arranges the speed to suit the work.

The Lombard Iron Works & Supply Co., of Augusta, has an exhibit in the Georgia Building of its "Jeff Davis" variable-feed saw mill. This machine is well known among saw-mill men, and the exhibit here shows the ease with which it can be worked and its simplicity.

One of the most artistic exhibits in the Georgia Building is that of the Southern Saw Works, of Atlanta. These works have a booth in the south end of the building, around which is placed a railing made from the strips of steel from which the teeth of saws have been stamped. Under this railing are placed different styles of plain-tooth circular saws. The back and side of the booth are panels on which are arranged different circular saws, varying from forty-eight inches, with a patent tooth, down to three inches, for specially fine work. These are arranged so as to show them to their best advantage and also give an excellent idea of the wide variety in size and special features which the company produces. There are also shown some small hand saws and tools for handling lumber, as well as machines for grinding the teeth of the saws. For this latter purpose the company has shown a pyramid of different sizes and shapes of emery wheels. The inserted tooth which this company makes for circular saws is well known and widely used.

The Stevens Bros. & Co., of Stevens Pottery, Ga., have in one corner of the building an exhibit showing a wide variety of both glazed and unglazed pottery articles, including jugs and jars of all sizes, flower pots, ornamental vases in large variety, glazed terra cotta pipe, terra cotta laundry tubs and bricks and tiles for different purposes. Alongside this exhibit is another of H. Stevens Sons'

Co., Macon, Ga., in which is shown all forms, sizes and shapes of terra cotta sewer pipes and drain tiles. Both of these exhibits are well arranged to display the large variety of the goods manufactured and also the excellent workmanship in them.

The R. D. Cole Manufacturing Co., of Newnan, Ga., has an exhibit of its engines, two of them being in operation and furnishing power to the building, and shows also three of the corn mills which it manufactures. It also shows the Florence twine machine for making seine twine, the manufacture of which it began about a year ago. The machine is a very interesting one to manufacturers of twine. It takes the yarn direct from the spinning frame and finishes the twine in one process, each thread having a separate tension, producing a twine which is closely woven and very strong. The cost of production with this machine is stated as one-half cent per pound of twine, which is far less than with the ordinary machine used for this purpose.

The Perkins Manufacturing Co., of Augusta, Ga., has in the Georgia Building one of the handsomest exhibits of lumber manufactures on the ground. The exhibit shows two small rooms, both finished in yellow pine, with artistic panelled ceiling, beautifully-designed doors and stair balustrades, two handsome scrolls separating an alcove, a fireplace and some furniture. All the work is in hard oil finish and shows what beautiful results can be obtained from pine. The exhibit is a fine one in every particular and reflects the highest credit upon the manufacturers.

The Southern Copper Works, of McMillan Bros., whose shops are located in Savannah, Mobile and Fayetteville, N. C., exhibit a large copper turpentine still of excellent workmanship.

The Southern Belting Co., of Atlanta, has an exhibit of some of its belts, the principal one being a large 48-inch three-ply stitched belt. It also shows some of the leather which it uses in this manufacture.

There is a little exhibit in the Georgia Building which has attracted a great deal of attention, the Bucher pneumatic water works. It consists of a tank which is sunk in a well and out of which extend two pipes, one going from the lower part to the supply pipe, and the other from the top to the air reservoir, which is connected with a pump operated either by hand or by a small electric motor. Air is forced into the top of the tank in the well and the pressure thus exerted forces air up through the spigot. The tank is provided with a valve which permits the entrance of water through the side, but prevents its exit except through the pipe provided for that purpose.

The Southern Agricultural Works have in this building a large booth in which is arranged an artistic display of its various products, different kinds of plows and other farm implements, the centrepiece being a pyramid on which are placed plow points and various other of the parts in the machine shown.

George Draper & Son, of Hopedale, Mass., exhibit in Machinery Hall their single rail spooler, with rolled steel boxes, the Hicks cone drive warper, with end-beam doffer, and they are exhibiting also their 28, 36 and 40-inch Northrop loom. The exhibit also contains a Hopedale twister, arranged for wet twist on one side and dry twist on the other.

The Northrop loom has attracted so



much attention from cotton manufacturers that it is, of course, the special feature of this exhibit. Its purpose, as is well known, is to reduce the labor cost in the weaveroom by making automatic much of the hand-work now done by the weaver. Mr. Northrop worked out the idea of putting a bobbin or cop of filling into a shuttle, ejecting the spent filling carrier and threading the new weft into the eye of the shuttle, all being done without stopping or slowing the loom, the shuttle meanwhile having an intermittent motion of about 200 flights per minute, traveling at a speed of over twelve feet per second. This has been practically and commercially accomplished with exceedingly simple mechanism.

As finally developed, this improved loom carries a supply of fourteen bobbins of filling in a hopper, which number could easily be increased. The weaver is, therefore, relieved of thirteen or more journeys to the loom that would have formerly been necessary. A very important point also from a humanitarian standpoint, is the fact that this loom relieves the weaver from the unhealthy act of sucking the filling through the eye of the shuttle and injuring the lungs through the cotton fibre inhaled. When it is realized that this act is performed about 200,000 times per year by each operative, it is no cause for wonder that weavers as a class are proverbially short-lived and consumptive.

Involved in this apparatus are devices that permit the shuttle to vary in position to a certain extent, as it necessarily does in practice, and yet prevent any damage if the shuttle should be abnormally misplaced. It is also arranged so that the loom will stop automatically should the hopper become exhausted, or should the shuttle eye become clogged so that it refuses to be threaded. All possible emergencies are provided for, and yet but few parts are used.

It is easy to figure out the saving that this loom will introduce. If less than half the weavers are necessary, the labor cost is, of course, greatly reduced. As the labor cost of weaving will probably average about one-half of the entire labor cost in the mill, it is seen that the value of this invention is very large. Another point of great value is the quality of the cloth produced. The warp stop motion guarantees perfection, so far as warp defects are concerned. Then as the filling is changed with the loom in motion, thin places are almost entirely avoided. Seconds must, of course, be a scarce quantity, and weavers' fines almost unnecessary. The production per loom is greater than before possible, for the reason that it is entirely practical for the weavers to leave their looms running when they leave the mill at noon or night, and if the power be left on for the noon hour and an hour later at night, there is a very considerable gain. This is, of course, not a possibility with ordinary looms, as they have no devices to prevent poor work when not watched.

The General Electric Co. has in the Electricity Building a large and very complete exhibit of its products. The centre-piece of the exhibit is a small office, around which are displayed various electrical supplies, and above it a model of a section of the upper field of the largest electric generator in the world. At the base of the model, on either side, are cases, on the top of which are various sizes of fans. The cases contain panels, in which are placed station switches, cleats and connectors, brush-holders, fuses and trolley-line materials. Within the railing which incloses the exhibit there are various styles of motors, both for general service and street-car

and railroad work. Street-car controllers and rheostats are shown, transformers, meters, branch connections for underground systems, central stations, switchboards, various styles of arc lamps and many other supplies which this company manufactures. One of the notable features of the exhibit is the three-phase induction motor operated from monocyelic generator built by this company and run from the same circuit which supplies light for the exhibit. This dynamo is made to operate both the arc and incandescent lights, as well as induction motors. These motors have become popular with cotton-mill sections, as there is no possibility of sparking, owing to the absence of brushes and commutators. The company also shows one of its new form of street-car controllers, with an electrical brake attachment. The brake is applied by the same handle which runs the controller, and has been shown by experiments and severe tests to give a smooth action in braking the car and at the same time to be capable of bringing the car to a standstill quickly, amounting thus to an emergency stop.

The Electric Storage Battery Co., of Philadelphia, has in the Electricity Building an exhibit showing its chloride accumulators, electric launch controllers and batteries for operating small motors, carriage lamps, sewing machines, fans, and for other purposes. This form of battery is used to operate the electric launches on the lake at the exposition. These storage batteries have come into very wide use since their introduction, both for the purposes above mentioned and as accumulators for central stations. For the last purpose they are very useful, as by employing them many small sources of power may be utilized in furnishing light and power which might not otherwise be available because not sufficiently large at all times to supply the maximum demand; for instance, the force of the tides or of other small water-powers. As accumulators they are further useful in regulating the current in central stations, since any excess can be taken up by them and afterwards applied. The list of purposes for which the accumulator, or, as it is proper to term them, storage battery, can be used is given by the company as follows: Carriage propulsion, electric-launch propulsion, train lighting, yacht lighting, carriage lighting, bicycle lighting, miners' lamps, dental, medical, surgical and laboratory work, phonographs, kinetoscopes, automaton pianos, sewing-machine motors, fan motors, telegraph, telephone, electric bell, electric fire-alarm, heat regulating, railroad switch and signal apparatus. As used for these purposes the accumulators are so arranged that there is no danger of spilling the fluid. The smaller sizes are widely used in connection with phonographs, kinetoscopes and other small motor work, and for small electric lamps.

The Henry R. Worthington Co., of New York, the agencies of which are located in nearly every large city in the world, has an extensive, interesting and highly-instructive exhibit of pumps in Machinery Hall. In these pumps an ordinary slide valve is used, working upon a flat face over ports or openings. Motion is given to this valve by a vibrating arm, which swings through the length of the stroke with long leverage. The moving parts are always in contact, to avoid any blow. To this the valve owes its freedom from noise. Two pumps are placed side by side, and so combined as to act reciprocally upon the steam valves of each other, the one piston acting in such a way

as to give steam to the other, after which it finishes its own stroke and waits for its valve to be acted upon before it can renew its own motion. This pause allows all the water valves to seat quietly, and removes uneven motion. The Worthington valve motion is especially useful in steam pumps applied to fire service, as it enables them to run without danger of derangement at the high rate of speed sometimes required.

This exhibit covers an area of 3000 square feet, and occupies the whole of two sections near the centre of the building. There are forty-four varieties of pumps made by the company on exhibition.

The high-duty pumping engine is the largest machine in the hall. This is not as large as some that have been built at these works. Some have been turned out and are now in use with a capacity of over 30,000,000 gallons per day.

Another machine in this exhibit worthy of special mention is the Worthington self-cooling condenser, which operates without the usual requirements of a large water supply. This is new, and shown here for the first time. The advantage is that it affords the opportunity to apply to any steam engine a condenser, giving users of steam-power a means of economy that has heretofore been unavailable except where an abundant water supply was close at hand.

The condenser consists of two parts—the condenser, in which the exhaust steam of the main engine is condensed, and the tower, in which the heated discharge water from the condenser is cooled to a proper temperature to be used again for a further condensation of the exhaust steam. This process is carried on continuously, the heat of the exhaust steam being carried off in the atmosphere by the evaporation of a portion of the water in the tower.

There are also on exhibition several Worthington condensers of the regular form, for use where there is an ample supply of water. These are built in all sizes, and have a capacity of from fifty to 5000 horse-power.

One of the exhibits in this section consists of a working model of a late form of cotton compress, and is proportioned throughout on a reduced scale of a compress capable of exerting a pressure on a bale of from 2,000,000 to 3,000,000 pounds. The press is run with hydraulic pressure furnished by a Worthington pressure pump, combined with a new accumulator.

The rest of this exhibit comprises pumps for every purpose, compound, high-duty, low-service, power and triple-expansion, for pumping air, ammonia, beer, garbage, oil, sugar, tanning liquid and other fluids. In addition, there are elevator pumps, underwriter pumps, fire-pumps, electric pumps and wrecking pumps.

A branch office and warehouse will be established in Atlanta at the close of the exposition.

The American Ball Nozzle Co., of New York, has in the upper floor of the Fire Building an extensive display of its various styles and sizes of ball nozzles. This nozzle is well known to users of fire apparatus. They have accomplished something that the spray nozzle was originally designed for, but failed in, that is, to throw practically a sheet of water between the fireman and the flame, enabling him to enter a room and force the smoke and flame out ahead of him, at the same time protecting himself thoroughly. The nozzle is a double one, with three-way valve of equal diameter with the interior of the nozzle. By throwing the handle of this valve parallel with the

nozzle the stream is thrown solid, as in the ordinary fire nozzle, but throwing the handle to the right cuts off the solid stream and sends the water through the ball nozzle. By turning the handle in the opposite direction from this the stream is cut off entirely. On the outside of the Fire Building the company has a small structure with glass sides, in which an employe puts the nozzle into service, showing the stream that is secured, both from the solid and the ball nozzle. The surprising feature of this nozzle is that the ball is not thrown out of the cup which contains it. In nozzles used in general practice there is a rib placed over the ball to hold it in place, so that in ordinary handling it will not be lost, but it is perfectly practicable to remove this and carry the ball separate from the nozzle, inserting it, or to better describe it, simply placing the ball in the stream at the nozzle at such times as desired. Instead of the water throwing the ball away, it holds it in place, the ball revolving rapidly all the time. This nozzle has a wide application, and is used for atomizers to destroy insects on vegetables and trees, and also for medical and surgical instruments. It has been adopted by nearly all the fire departments in this country, and is meeting with equal favor abroad.

Jas. Leffel & Co., of Springfield, Ohio, have in Machinery Hall an exhibit of their Sampson turbine wheel and Cascade water-wheel, and also a handsome model of a small turbine wheel. Besides this, the company shows two examples of its combined engine boilers, one small horizontal boiler with the engine mounted on the top of it, and the other a vertical boiler with the engine alongside. The manufactures of this company are among the best known in the country. At Niagara Falls, a work known all over the world, it has supplied four of its "Niagara" wheels for a head pressure of 216 feet and to give 8000 horse-power. These will be coupled direct to eight electrical generators for power purposes. This is only one of the many types of wheels which it makes, and of their excellence, the fact that over 14,000 are in use, giving over 600,000 horse-power, is sufficient evidence.

The company publishes a catalogue describing its various wheels, and to accommodate its growing trade in Spanish-America has issued a catalogue of its "Cascade" wheels in this language, giving in it information concerning the wheels and much valuable data for hydraulic engineers.

The Ramapo Iron Works, of Hillburn, New York, has in the southeast corner of the Transportation Building an extensive exhibit of its products. One of the features which attracts much attention is that of the automatic safety switch and spring frog, also railroad signal lights used in connection with the switch. In the rear of the exhibit there is a small brass model showing the safety switch and its method of application, and also a small model of the ordinary type of yoke frog and another of the safety spring frog manufactured by this company. In the same exhibit the Ramapo Steel & Foundry Co. has a display of its various styles of locomotive and car wheels, and also the Ross-Mehan brake shoes. This brake shoe, as is well known, is cast with small pieces of steel in the tread to take up the wear. A section is also shown of one of the Snow patent steel-tire wheels.

The Engleberg Huller Co., of Syracuse, New York, has in the Transportation Building an exhibit of the rice machinery which it manufactures, and which is largely used throughout the



South in South Carolina and Louisiana. In the exhibit there is a rice huller and polisher which is operated, showing its action in service.

The Stirling Co., of Chicago, has in the rear of Machinery Hall four batteries of boilers which furnish all the steam used on the grounds. Three of these batteries, of two boilers each, are of 500 horse-power each (250 horse-power to each

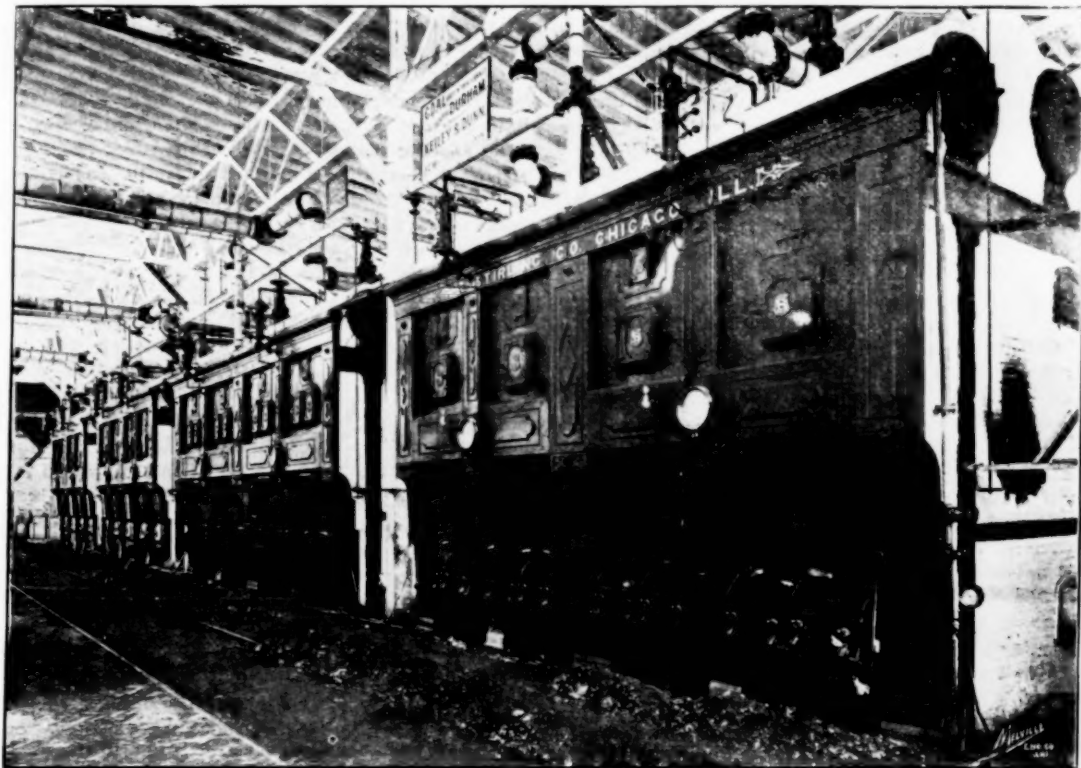
manual labor, have directed their efforts towards the construction of machines for the purpose, firstly, of diminishing the manual labor of firing furnaces of various kinds; secondly, of producing a more perfect combustion of the fuel; thirdly, of utilizing the heat contained in fuels whose physical condition prevents their economical use on what is known as the flat grate, as, for example, the bagasse of the sugar planter, wet sawdust, tan-

When used with a power feed the hopper A receives the coal from a conveyer. B is a sliding door which may be pulled out and thus allow sufficient fuel to drop from A to make one charge. D is a pusher, which is given a reciprocating movement by the arm E, which is operated by power applied to the shaft E'. D is connected to E by the link F. C is a flat plate upon which the coal falls after passing through the throat of the hopper.

slotted gates which make up the remainder of the furnace. The grate H is pivoted at the point H', and has cast to it an arm, H<sup>2</sup>. H<sup>2</sup> is a rod which connects the arm H with one leg of a bell crank, H<sup>3</sup>, the other leg of which is a hand lever, H<sup>4</sup>. By pulling down the hand lever H<sup>4</sup> the grate H may be thrown into the position indicated by the dotted lines, or to any intermediate position, as may be desired. The object of this is, first, to break up the fuel lying on top and immediately in front of H; secondly, to force the fuel toward the bridge wall, and, third, to provide an opening through which a slice bar may be inserted for the purpose of breaking up the fuel lying on the stationary grate I. J is a movable grate, pivoted at J', having an arm, J<sup>2</sup>, and connected to H<sup>4</sup> by the rod J<sup>3</sup>. Its operation and functions are the same as H. K is a grate, pivoted at K', operated in a similar way. L is the dumping grate, pivoted at L', its arm, L<sup>2</sup>, being connected to the arm K<sup>2</sup> by the link K<sup>3</sup>. The dumping operation is as follows: The rod K<sup>3</sup> is thrust forward by a lever similar to H<sup>4</sup>, which throws the grate K up and the grate L down, which dumps the ash and clinker on L into the ashpit. This is a marked improvement on the dumping grates in use in other stokers, since by throwing the grate K upward the unconsumed fuel behind is prevented from sliding down into the ashpit when the dumping grate L is lowered.

In working by hand firing the coal is shoveled from the floor to the flat plate C, the remainder of the operation being practically the same as in power firing.

The Cross Manufacturing Co., of Washington, D. C., has one of its delinting machines in operation in Machinery Hall. This machine has attracted a great deal of attention from persons interested in cotton matters. Its operation is shown here by putting in the cottonseed from the gin and separating the lint, which is thrown into the lintroom, while the cleaned seed go out into the box placed beneath the machine. The capacity of the machine is given as three tons of seed in twenty-four hours, the machine revolving 360 revolutions per minute. At 600 revolutions per minute it will clean five tons. The amount of



VIEW OF BOILER ROOM AT ATLANTA EXPOSITION.

boiler), while the fourth battery is larger, consisting of two boilers of 350 horse-power each, or 700 horse-power in all. This makes a total of 2200 horse-power represented by the boiler plant, illustrations of which are given herewith.

The Stirling boiler consists of three upper or steam drums and one lower or mud drum, all connected together by means of tubes which are bent slightly so as to enter the drums normal to their periphery. All of the upper drums are connected by steam circulating tubes, but the front and middle drums only are connected by water circulating tubes. The tubes used are three and one-quarter inches diameter, made of lap-welded mild steel and subjected to a water pressure of 1500 pounds per square inch. The drums are made of high-grade flange steel.

The Stirling Co. publishes a series of tests of its boilers made in various places, some of which are given below:

	Horse-power rating.	Duration test, hours.	Temperature feed.	Evap. per lb. coal from and at 212°.	Evap. per lb. combustible from and at 212°.	Coal consumed per sq. ft. grate per hour.
American Cereal Mills, Akron, O.	300	6.25	38.7°	8.55	9.59	24.8
General Elec. Co., Cleveland, O.	400	8.00	76 0°	9.37	10.03	17.12
Portland St. Ry. Co., Portl'd, Me.	250	8.57	210.0°	11.02	12.06	11.69
Carnegie Mills, Pittsburg, Pa.	300	5.00	40.0°	8.35	10.35	.....
Toledo Wat. Wks., Toledo, O.	300	16.33	116.0°	10.38	11.79	21.70

Two of the Stirling boiler batteries are provided with Meissner stokers, manufactured by the Meissner Engineering Co., of Chicago. These stokers are shown in the accompanying illustration.

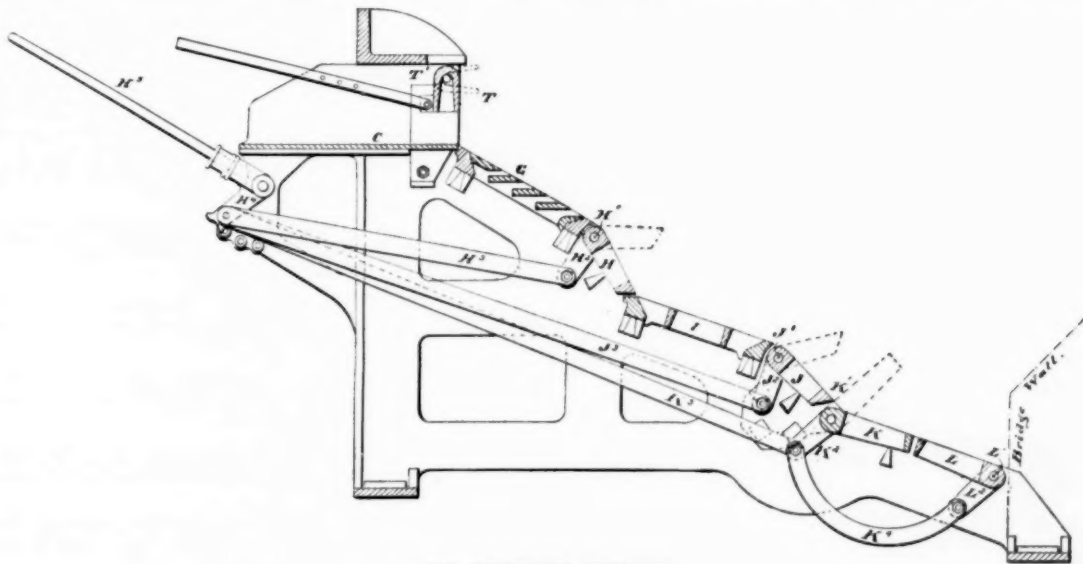
Designers of grates and stokers of various kinds, whether fired by power or by

bark, and slack or culm of various coals; fourthly, of enabling the fireman to charge his furnace and clean his fires without opening doors and thus allowing cold air to invade the space provided for the utilization of the heat of the fuel; fifthly, of abating the smoke nuisance, which has been so much discussed within the last few years.

An astonishing number of designs has resulted from the endeavors of inventors

The pusher D makes from ten to twenty strokes a minute, according to the rapidity of firing, and shoves the fuel along the plate C into the furnace. T is a swinging door which is pivoted at T'. This door is perforated and slotted, thus allowing a small amount of air to pass through and keep it from becoming overheated.

As the coal is shoved along the plate C the door T is raised to the position indicated by the dotted lines, where it re-



THE MEISSNER STOKER.

to produce a grate or stoker possessing all or a part of the above functions. A great many have proven fairly successful, but complication of parts, or liability to become inoperative on account of expansion, contraction or warping of parts, has driven many from the field.

The Meissner grate might be called a flat grate broken into steps. It is constructed either for power or hand firing, the latter being used at the boilers here.

mains until the last of the charge is being pushed through, when it gradually drops back to its normal position. G is a coking grate in which the bars run horizontally, each standing a short space in advance of the one immediately above it, thus preventing the very fine dust from sifting through when using slack. As the coal is worked down along G it gradually becomes coked and in this condition it will not fall through the vertically-

lint taken from a ton of seed is given as 330 pounds, and the space required for the machine ten feet by four feet. The construction of the machine is quite simple. There are inside a number of rolls conically arranged in a cone casing with a conical drum, on which the brush is fastened. Between the rolls is sufficient space to allow the fibre or lint, as it is going over the side, to be thrown by a vacuum pan through the space. The



brush is made of heavy steel rolls, set in a wood backing. The staples are shaped hairpin-fashion and tempered hard, for the reason of grit in the fibre. The machine is so arranged that when the wires wear on one side the brush can be reversed in two minutes, and this will put the other side of the wire which is not torn smooth in contact with the seed; then, when that side wears down, again reverse the brush. The machine weighs 6000 pounds.

This machine takes cottonseed, after they have passed through a delinting machine, where from twenty-five to thirty pounds of lint are secured, and from it gets from 300 to 330 pounds of fine lint. The samples here shown all have a yellowish color, and on examination show that some of the seed has been cut. This may be avoided by a different arrangement of the brushes, and when this is done the product will be an extremely valuable one for paper-making and other purposes of this kind, and for surgical work, where a fine, soft lint is needed.

The Niles Tool Works Co., of Hamilton, Ohio, has in Machinery Hall a large exhibit of its machines. One noteworthy feature of the exhibit is a car-wheel borer, which includes a tool for facing off the hubs. This is an entirely new feature in machines of this class. The borer is strongly built, after the usual type of the Niles machines. The machine takes wheels up to forty-four inches in diameter. All the machines in the exhibit are belted up and in operation, showing the speed of the various parts. Among these is a 60-inch double-head hexagon boring and turning machine weighing 16,000 pounds. Each head works independent of the other. One of the machines is a double axle-lathe, provided with a crane swinging over the frame of the machine to permit the ready handling of heavy work. A new feature of this machine is the automatic pump for carrying oil and water to the tool. This machine is calculated to turn eighteen to twenty axles per day. Another machine is a horizontal boring and drilling tool, which will bore in the centre of a 60-inch circle. The boring spindle is of steel three and one-half inches in diameter, with 48-inch traverse and three changes of feed by gearing. This speed can be changed instantly from one-eighth of an inch to one-sixth of an inch.

Another is a double-head, 36-inch planing machine, with a 10-foot table, the machine weighing 14,000 pounds. This machine reverses four to one, and is so constructed that the feed can be changed instantly from coarse to very fine, thus enabling it to do a wide variety of work. Another feature is that the stroke of the planer can be changed without the use of wrench.

Another machine is the No. 2 universal radial drill, with six-foot arm and a column eight feet three inches in height. With a machine of this class it is much easier to move the drill to the work than the work to the drill, as one man can accomplish the former quickly and with little effort. When the work is taken to the drill it must necessarily be shifted until the point where the hole is to be bored comes directly under the drill, but in machines of this character the work can be placed anywhere within reach of the machine and the drill placed in the mark to be bored in an instant. Still another machine is a 22-inch engine lathe, with 12-foot bed, swinging fifteen inches over the carriage. The cone pulley of this machine has four speeds for three-inch belts, and is turned on the inside so as to balance perfectly. The screw-cutting nut is engaged and disengaged instantly by a cam. The spindle

is hollow, and made of fine cast steel, and is provided with large and long journals running in composition boxes. All of these machines are finished in a thoroughly workmanship manner, and provided with United States standard threads for all screws.

The Buckeye Iron & Brass Co., of Dayton, Ohio, has in Machinery Hall an interesting exhibit. One feature of this is a model of a 125-ton cottonseed-oil mill, showing the process of crushing, cooking and extracting the oil from the meal. The heaters for cooking the meal are one of its recent patents. Instead of making the vats of wrought iron they now make them of cast iron, cored out to allow circulation of steam through them, giving a greater thickness of material to hold the heat and a larger surface for cooking. They also have an automatic change cock, connected with a hydraulic accumulator, which regulates the pressure on the press so that they will neither feel the action of the pump or any excess of pressure over a given amount. The company manufactures mills from eight tons capacity per day to 500 tons, and now has in existence over 500 presses, among them the largest cottonseed-oil mill in the world, consuming daily 500 tons of cottonseed, turning out on an average of forty-five to forty-eight gallons of oil per ton, and giving from twenty-eight to thirty pounds of lint. Three sizes of 10 to 15-box presses are built, solid press, solid steel grate and solid press plate. The press box is claimed to make a great saving in press cloth, not consuming more than ten cents per ton, whereas the majority of mills run as high as fifty-four to seventy cents.

The company makes all classes of brass hydraulic presses up to 10,000 pounds to the square inch. A number of these are displayed, as also brass fittings for use in steam connections. Among these there is a wide variety of globe valves, butterfly valves, check valves, brass cocks of all kinds, steam whistles, oil cups and other engine fittings.

The company manufactures also the Pease tobacco-cutting machine, which has been in use during the past twenty-five years in the principal fine-cut, chewing, smoking tobacco and cigarette factories throughout the United States and Canada, and is extensively used through Europe and South America. These are built in two sizes, Nos. 2 and 3. The capacity of No. 2 machine, at 900 revolutions per minute, is from 800 to 1000 pounds finest grade of chewing, or from 1500 to 3000 pounds of smoking, cut per day of ten hours, according to the grade or fineness of the cut. One operative only required to attend each machine. The power required is from four to six horse-power, and the weight 2200 pounds. The No. 3 machine has a capacity one-fourth greater, and weighs 3300 pounds, the power required being six to eight horse-power. By means of interchangeable feed-wheels, which are easily and quickly adjusted, almost any degree of fineness of cut can be made, ranging from the 1-225th part of an inch down to 3-16ths of an inch for coarse granulated cut.

The Standard Machine Co., of Philadelphia, has in Machinery Hall an exhibit of three of its automatic knitting machines. The machine when knitting the toe of the stocking uses two strands of yarn; when the toe is finished one strand of the yarn is broken out and the foot knitted with only one strand. As it comes to the heel the extra strand is engaged again, making a reinforced heel, and the movement of the machine is changed from a rotary to a reciprocal motion. When the heel is finished and it

is knitting the ankle, then the machine changes automatically from a short stitch to a long one, which knits the swell in the leg to accommodate the calf and by this means produces a shaped stocking without any seam. If a yarn should happen to break the machine is stopped automatically. It has a slip cam cylinder, which permits it to run at a very high speed. In case of striking a needle the cam cylinder comes to a stop, while the gear makes a half-revolution and stops the machine. As soon as the accident is repaired the machine starts off again.

The production of these machines varies according to the gauge and number of needles of the machine. One making ladies' hose, twenty-eight inches long, one and one-half-inch welt and running ten hours, will give the following results: With eighty-four needles, three and three-quarter-inch cylinder, 10 dozen; 160 needles, three and three-quarter-inch cylinder, five dozen; 188 needles, four-inch cylinder, four dozen; 200 needles, four-inch cylinder, three and three-quarter dozen. On half hose the production would be about 20 per cent. more.

The standard 'B' machine runs 250 revolutions on the leg and 125 on the heel.

The Frick Co., of Waynesboro, Pa., has in the Machinery Hall one of its 250 horse-power Corliss engines; cylinder twenty inches in diameter, 48-inch stroke. This engine is furnishing all the power in the building, with the exception of the electric lights. The large flywheel is grooved and belted to the main shaft by rope on the Dodge system.

Attached to the engine is a new electric stopping device, brought out by the Springfield Engine Stop Co., of Springfield, Mass. It consists of a magnet, the armature of which engages an arm supporting a weight. When the current passes through, the armature is drawn in, releasing the arm and thus dropping the weight. This throws the governor out and stops the engine.

The Harrisburg Foundry and Machine Works, of Harrisburg, Pa., has in the Machinery Hall a fine example of its "Ideal" tandem compound automatic engine, driving a 160-kilowatt Fort Wayne alternator, arranged with direct coupling and running at 240 revolutions. The high-pressure cylinder is 14-inch bore, low pressure 24-inch, with a 16-inch stroke. This was set up at the opening of the exposition and has been running steadily without any adjustment having to be made since. This is the company's regular standard machine, which is so well and favorably known to the trade. One of the features of the engine is that it is self-oiling, the crank-disk and cross-heads being covered by a light hood. The crank-disk is so made as to throw oil over the working parts, while the crank-pin itself is lubricated in addition by two holes through which oil is forced by centrifugal motion. There are many other features of excellence about the engine, both as to its connections, cylinders and governor, the latter being especially sensitive in its action. Another thing is its freedom from vibration, the high speed of the engine here hardly causing a movement.

The American Cotton Bale Co., of St. Louis, has an exhibit in Machinery Hall of a number of round bales of cotton produced under the Bessonette system. The company has eight of these presses in use around Waco, Texas. The Bessonette system has been fully described in the Manufacturers' Record. The bales, as shown here, undoubtedly present many advantages over the old style compressed bales, both as to density and in preventing waste of cotton from coming in con-

tact with dirt or water. The purpose of this system is to take the cotton direct from the gin, preventing the further loss and expense now occasioned between the gin press and final compress, both as to danger from fire, soiling the staple, the large bulk handled, etc.

The National Metal-Edge Box Co., of Philadelphia, exhibits in Machinery Hall one of its patent metal-edge box machines. It consists of a cast-iron upright, on the end of which is a square steel-faced anvil, setting at an angle of 45°, or with one edge up. Rising above the column there is a movable arm operated by a rod which passes from the centre of the column to the treadle. The metal piece which is to be fastened in the box is placed in a slot cut in the head at the end of the arm. The heavy paper for the box, properly cut, is bent over the anvil and the arm brought down upon it. This drives the edge of the metal fastener through the paper, fastening the two edges together. Boxes made in this way appear to be strong and substantial.

The Richmond Locomotive Works has in the train shed, which is the annex to the Transportation Building, four fine examples of locomotives which it manufactures. On one side there is a large freight engine with four drivers, and on the other an equally large engine for higher speed, with three drivers, both of them being made for the Southern Railroad. On the other side there is a three-driver engine of the type used by the Chesapeake & Ohio Railroad, and back of it a large Richmond compound locomotive, well known in the railroad world. A very instructive part of the exhibit is in the interior of the locomotive cab, each of the levers being marked with a tag giving the name of the purpose for which it is used.

The Russell Manufacturing Co., of Middletown, Conn., has in Machinery Hall an exhibit of two of its suspender looms, both of them in operation weaving suspender straps, on which they place the names of the purchasers or any other words desired. A large display is made of the various styles of suspenders which the company produces.

The Hodgeson & Holt Manufacturing Co., of Laconia, N. H., shows in Machinery Hall one of its knitting machines for putting the edge on the socks and other work made. It also shows the Abel winder, which, like the knitting machine, is in operation.

The Branson Machine Co., of Philadelphia, has in Machinery Hall a number of knitting machines and also samples of its work.

#### Great Change in the South.

Who would have thought five years ago that the South, in this century, would be building warships and be prepared to build the largest and finest of modern battleships? Who would have thought ten years ago that in 1895 the South would be dotted all over with the smokestacks of cotton factories, and there would be hardly a county in the entire cotton belt in which the whirr of the loom and the song of the spindle would not be heard? Who would have thought ten years ago that the South would be making the best of steel and be sending coke and iron to Pennsylvania? All these things have come to pass, and they but partially tell the story of the marvellous development of the resources of the South. They are the greatest wonders of this industrial age, and are but forerunners of other wonders yet to come.—New York Mercury.